BACKGROUND MATERIAL FOR
JANUARY 12, 2000 PREHEARING WORKSHOP
AND JANUARY 31, 2000 HEARING

SUMMARY: The purpose of this document is to give general background information to all interested parties. It is intended to give sufficient information to help anyone understand the issues raised at a public hearing, within the context of the economic regulation of the dairy industry. It applies specifically to the California Milk Pricing and Pooling programs. However, it is also useful in understanding both the operation of federal milk marketing orders and the operation of the federal dairy price support system. These federal dairy programs are important for their impact on the California dairy industry. This background document will be discussed in the following Sections:

I. **Introduction**: a broad outline of statutes and facts giving rise to the upcoming hearing. Page 2.

II. **Economic Dairy Regulations**: an overview of regulation of the dairy industry. Page 3.

III. **Statutory Criteria for Establishing and Amending the Stabilization and Marketing Plans and the Pooling Plan**: a list of the criteria set forth in the Food and Agricultural Code for establishing or amending the Stabilization and Pooling Plans. Page 11.

IV. **Current Industry Conditions Relative to the Statutory Criteria**: Current information concerning the condition of the dairy industry in California. Page 17.

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SECTION I
INTRODUCTION

California Food and Agricultural Code Section 61801, *et seq*., provides the authority, procedures and standards for establishing minimum farm prices by the California Department of Food and Agriculture (Department) for the various classes of milk that processors (handlers) must pay for milk purchased from dairy farmers (producers). These statutes provide for the formulation and adoption of Milk Stabilization and Marketing Plans for Market Milk (Stabilization Plans).

The Gonsalves Milk Pooling Act, California Food and Agricultural Code Section 62700, *et seq*., authorizes the Secretary to operate a statewide pooling system under specified guidelines. These statutes provide for the formulation and adoption of Milk Pooling Plans for Market Milk (Pool Plan).

These statutes identify legal requirements and public policies that the Department is charged with implementing and enforcing. The determinations resulting from any hearing are made pursuant to the authority vested in the Department by statute and in furtherance of the important State purposes embodied in the governing statutes.

The Department has scheduled a public hearing for Monday, January 31, 2000 in Sacramento (HE#1). This hearing will consider possible amendments to portions of the Stabilization and Marketing Plans for Market Milk. The purpose of the hearing is to review the Class 1 pricing formula.

References to Departmental Exhibits

This Background document is based on the Departmental Exhibits scheduled to be made part of the hearing record on January 31, 2000 (See Appendix A-1). To avoid long citations, a shorthand is used. Thus, the twelfth exhibit proposed to be entered into the hearing record, the *"California Dairy Industry Statistics, **1998**,"* can be referred to as HE#12. All previous issues of documents HE#9 through HE#40 will be entered by reference. If any material in this background document uses a previous issue of a Hearing Exhibit, an asterisk will be added to the shorthand. Thus, the *"California Dairy Industry Statistics, **1961**,"* can be referred to as HE#12*.

When material from exhibits are used in this background document, they are cited in the text. Additional explanatory material is included in footnotes found at the bottom of a page.

SECTION II
ECONOMIC DAIRY REGULATIONS

Some 95 percent of the market grade (Grade A) milk produced in the United States is subject to regulation under federal orders (73 percent) or state marketing programs (22 percent). All grades of milk are impacted by the federal support-price system.

In 1998, California was the largest milk producing state in the United States. California dairy farmers marketed 27.6 billion pounds of milk, which represented 17.5 percent of the nation's marketings. California's share of US production is up from 12.8 percent in 1988 and 9.8 percent in 1978. California has also seen increases in cow numbers. In 1998, California had more cows than any other state in the United States: 1.4 million adult milk cows representing 15.3 percent of the nation's total herd. California's share of US cow numbers is up from 10.6 percent in 1988 and 7.8 percent in 1978.

Milk Pricing

To promote stability in the dairy industry, both the federal government and eleven individual states have established milk-marketing programs. The eleven states with their own marketing orders are California, Hawaii, Maine, Montana, Nevada, New Jersey, New York, North Dakota, Pennsylvania, Vermont, Virginia. Of these eleven states, seven have a mixture of state and federal orders. Only California, Hawaii, Maine and Montana have no federal orders within their boundaries. Uniquely, Alaska has neither a federal nor a state order; it also has the smallest milk production of all fifty states.

These milk-marketing programs establish minimum prices, based on ultimate utilization, that processors must pay for market-grade (Grade A) milk received from dairy farmers. These prices are established on a regional basis within marketing areas where milk production and marketing are similar.[1]

Pursuant to the 1996 Farm Bill, USDA attempted to make significant amendments to its federal milk marketing order system effective October 1999. However, a court challenge delayed implementation until January 2000. The text describes the rules implemented by USDA beginning January 2000. Appendix A-2 includes a description of federal order rules before January 2000.

California is not part of a federal milk marketing order; instead it has its own state-specific, milk-marketing program. Currently there are two marketing areas: Northern California and Southern California.[2] Each marketing area has a separate but essentially identical Stabilization and Marketing Plan. Each plan provides formulas for pricing five classes of milk.

[1]Marketing areas are discussed below in this section under **"Marketing Areas"** which begins on page 9.

[2]The history of consolidation down to the current two marketing areas is discussed below in this section under **"Marketing Areas"** which begins on page 9.

Class 1: Milk used in fluid products, including half-and-half.
Class 2: Milk used in heavy cream, cottage cheese, yogurt and sterilized products.
Class 3: Milk used in ice cream and other frozen products.
Class 4a: Milk used in butter and nonfat dry milk (NFDM).
Class 4b: Milk used in cheese, other than cottage cheese.

In comparison, there are four classes of milk in the 11 federal milk-marketing orders administered by the United States Department of Agriculture (USDA).

Class I: Milk used in fluid products, excluding half-and-half.
Class II: Milk used in half-and-half, heavy cream, cottage cheese, yogurt, sterilized products, ice cream and other frozen products.
Class III: Milk used in cheese, other than cottage cheese.
Class IV: Milk used in butter and NFDM.

In California, the classes of milk are established legislatively. In federal milk marketing orders, they are established administratively.

Milk has four basic components: butterfat (fat), protein, other-solids (OS) and fluid carrier (water). In both California and federal orders, milk is priced on these four components or combinations of them: solids-not-fat (SNF) is a combination of protein and OS; and skim is a combination of SNF and fluid (see Table 1). In California, Class 1 milk is priced on fat, SNF and fluid; Class 2, 3, 4a and 4b milk is priced on fat and SNF. In all federal orders, Class IV is priced on fat and SNF; Class III is priced on fat, protein and OS; and Class I is priced on fat and skim. Class II is priced on fat and SNF in seven orders; in the remaining four orders, it is priced on fat and skim.

Table 1 **- COMPONENT PRICING**
Current California and Federal Systems

	FAT	SNF	FLUID	SKIM	OS	PROTEIN
CALIFORNIA						
CLASS 1	X	X	X			
CLASSES 2, 3, 4a, 4b	X	X				
FEDERAL						
CLASS I	X			X		
CLASS II:						
4 ORDERS	X			X		
7 ORDERS	X	X				
CLASS IV	X	X				
CLASS III	X				X	X

Sources: HE#9, HE#43

In California, Class 1, 4a and 4b farm prices are adjusted monthly by their formulas. Class 2 and 3 farm prices are adjusted bimonthly by their pricing formulas. All federal order farm prices are adjusted on a monthly basis.

A detailed description of the California pricing formulas is given in Appendix A-3. In summary, the California Class 4a and 4b pricing formulas and the federal Class III and IV pricing formulas all use commercial market prices for butter, NFDM and Cheddar cheese. These prices are adjusted by specific manufacturing cost allowances and yields to determine component prices:

Farm Price = (Commodity Price - Allowance) x Yield

Both the California orders and federal milk marketing orders (federal orders) use differentials to establish their minimum milk prices for all other classes: California Classes 1, 2 and 3, and federal Classes I and II.

The current Class 2 and 3 component prices are established by adding specific amounts to the Class 4a component prices. The specific amounts are contained in the Stabilization Plans and are commonly referred to as the Class 2 and 3 differentials. These Class 2 and 3 differentials range in value from $0.64 to $0.92 on a hundredweight equivalent basis.

The Class 1 farm prices are established by adding specific differentials to the Commodity Reference Price (CRP). The CRP formula is of the same form as the Class 4b pricing formula without the manufacturing cost allowance:

Commodity Reference Price = (Commodity Price) x Yield

The CRP is based on Cheddar cheese and butter prices. The differentials added to the CRP are $0.222 per hundredweight for Northern California and $0.494 for Southern California. Component prices are established on a fat/skim basis. The fat price is based on butter prices. The SNF and fluid prices are calculated as residuals.

Across the whole country, federal Class I prices are established as differentials above the higher of the Class III or Class IV price. The Class III and IV prices used in the Class I formula are not the current Class III and IV prices, but advanced prices based on commodity prices for the first two weeks of a given month. The Class I differentials range in value from $1.60 to $4.30 per hundredweight depending upon the marketing situation in each particular federal order. Within California, the differentials range from $1.60 to $2.10, while the differentials are $1.60 to $2.35 in those states adjoining California. Federal Class II farm prices are established as a differential above the advanced Class IV prices. The Class II differential is $0.70 per hundredweight in all federal orders.

Like California, the state of Nevada has its own state marketing program. In Northwestern Nevada (Reno), the Class I price is set equal to the Northern California Class 1 prices. In Southern Nevada (Los Vegas), the Class I price is set at $1.40 per hundredweight above the federal order Class III price. This later procedure differs from the Class I pricing procedure used in federal orders: (1) only the Class III price is used, not the higher of Class III or IV; and (2) the Class III price is the actual Class III price, not the advanced Class III price.

To assist in establishing farm prices, the Department conducts milk production cost surveys on some 260 of California's approximately 2,000 Grade A dairies. The Department also conducts

manufacturing cost studies of all major California plants manufacturing butter, NFDM and Cheddar cheese. Summaries of the surveys and studies are available to the public upon completion. The Department compiles and publishes monthly and annual dairy statistics including production, usage, sales and trends. In addition, other statistical data on the California dairy industry is compiled periodically as needed. Confidential information collected from California dairy farmers and handlers is available to Department staff. The Department monitors and maintains information on milk trends, programs and policies used in other parts of the nation.

Milk Pooling

As in most federal milk marketing orders, California processors contribute to a central milk-revenue pool. In federal orders, revenue from milk is pooled to establish a uniform blend price for all producers. This blend price can be modified for each individual by location differentials based on the distance of the plant that receives the milk to a central basing point. Unlike most federal orders, California does not have a single blend price. Under the California Pooling Plan for Market Milk, the producer is paid based upon his or her allocated quota, base and overbase at prices that reflect the pool-wide usage of all classes. The monthly quota and monthly base amounts are computed for each producer to the extent these amounts are produced. The maximum monthly-quota amount is determined by the current quota allocation, and the maximum monthly base is determined by the difference between production base and quota. Any production that exceeds these two figures constitutes overbase production.

Each handler submits a monthly report to the Department's Milk Pooling Branch. These reports indicate the amount of milk purchased from producers and other handlers and the amounts used in the various classes. The total class value is determined by multiplying the class usage by its appropriate class price[3] for each handler in the pool, and then adding these respective amounts for all pool handlers. This results in the pool-wide usage for each class and its related value.

Revenue from processors is distributed to dairy farmers via quota, base and overbase prices. From Pooling's inception in 1969 to 1993, the quota price was primarily impacted by Class 1, 2 and 3 farm prices, while the overbase price was primarily impacted by the Class 4a and 4b farm prices. This was changed by statutes enacted in 1993 and 1994 (the 1993 legislation was a temporary two-year measure; the 1994 legislation was a permanent measure). Beginning in January 1994 because of these statues, a fixed differential was established so that the quota price is always $1.70 per hundredweight greater than the base and overbase prices. Historically from 1969 through 1993, the difference between the announced quota and overbase farm prices ranged from $1.06 to $2.26 per hundredweight on an annual average basis. Currently, revenue above that needed to maintain the $1.70 differential is shared equally among quota, base and overbase production. The announced quota price is adjusted based on farm location by regional quota adjusters (RQA's). Prices paid to an individual producer will depend upon his or her farm location and blend of quota, base and overbase holdings. For computational purposes, the whole

[3]Minimum class farm prices announced by the Dairy Marketing Branch are discussed above in **"Section II"** under **"Milk Pricing"** which begins on page 3.

$1.70 is assigned to the solids-not-fat (SNF) price. Thus, the announced quota SNF price is set at $0.195 per pound above the base and overbase SNF prices. Because of RQA's, the actual quota SNF price received by individual farmers may be adjusted downward by up to $0.03 per pound ($0.27 per hundredweight) based on farm location. The quota, base and overbase fat prices are all the same.

Handler obligation statements are computed and mailed to each pool handler by the 28th of each month. These statements take into account the handler's class usage and the gross amount the handler is directed to pay producers supplying the handler milk for their producing quota, base and overbase milk. If the total value of the class usage is greater than the amount the handler owes producers for their milk, the handler pays the difference into the pool equalization fund. However, if the amount owed producers is more than the value of the usage, the handler receives this difference from the equalization fund.

Not all revenue is pooled either in federal orders or under the California revenue pool. In federal orders, plants not making any Class I products (manufacturing plants) plants can opt out of the pool. They do this when it is in their self-interest because their plant blend price exceeds the pool blend price. In addition, producer-distributors (a.k.a. producer-handlers) in some cases do not account to the pool for their Class I production.

Likewise, not all revenue is pooled in the California producer pool. In California, plants not making any Class 1 or 2 products (manufacturing plants) can opt out of the pool. However, they generally will not if they are receiving any milk from producers owning quota. Over 75 percent of producers own some quota; over 40 percent of producers have at least one third of their milk production covered by quota (HE#26*).

In California, Exempt Producer-Handlers (a.k.a. producer-distributors) do not account to the pool for all of their Class 1 production. Option Exempt Producer-Handlers (§62708.5) do not account to the pool for their Class 1 production that is covered by the exempt quota they own. Finally for pool obligations, milk from out-of-state sources is credited at a plant blend price. However, the credit cannot exceed the announced quota price nor to be less than the announced overbase price both with an upward adjustment for the costs of transportation allowances and credits.

Incentives to Supply Class 1 Markets

Historic Review - Producer price regulation established in the mid 1930's brought stability to the dairy industry, but did not guarantee all producers the same price. The price they received depended on the utilization of the plant they shipped to under a plant pooling and contract system. Thus, producers shipping to a plant with high Class 1 usage received more than producers shipping to a plant with high Class 4 usage. There was competition for Class 1 contracts among producers. Also, there was an imbalance of marketing power between a large number of producers and a small number of fluid processors. These factors lead to a situation of market instability and price inequity.

Passage of the Gonsalves Milk Pooling Act in 1967, with its implementation in 1969, corrected many of these problems. However, it removed the existing incentive that existed under the old contract system for producers to ship their milk to a Class 1 plant. Instead, producers would have an incentive to ship to a local plant, which generally is a manufacturing plant. The incentive to ship to a Class 1 plant still exists for Exempt Producer-Distributors, Option Exempt Producer-Distributors, and out-of-state milk.

To address this problem, location differentials were established to encourage the movement of only quota milk to Class 1 plants. Over time, overbase milk became a larger and larger share of the milk produced by individual producers and by the total pool. Therefore, location differentials based solely on quota milk were no longer able to ensure that adequate milk was made available to Class 1 plants. Thus, location differentials based solely on quota milk became increasingly cumbersome and less efficient in ensuring that adequate milk supplies were made available to Class 1 plants.

Current Provisions - In 1982, location differentials were replaced by transportation allowances and regional quota adjusters (RQA's). The RQA's do not encourage milk movement to Class 1 plants. They were developed to deal with equity issues arising out of the elimination of the location differentials.

In addition to the transportation allowances, two other methods to encourage the movement of milk to Class 1 plants were established: call provisions (1979) and transportation credits (1981). At one time Class 1 area differentials were able to cover the cost of moving milk plant-to-plant; Class 1 area differentials are the differences in the hundredweight prices between marketing areas. However, with marketing area consolidation and improvements in relative costs of moving milk ranch-to-plant, Class 1 area differentials were no longer sufficient to cover the cost of plant-to-plant milk movement. These conditions resulted in the establishment of transportation credits. All three methods of encouraging milk movement are detailed below:

(1) Call provisions -- Can require that manufacturing plants release milk to Class 1 plants when insufficient milk supplies are available to meet the demand for fluid milk.

(2) Transportation credits -- A reduction in the obligation handlers pay for Class 1 milk that partially compensates for the cost of hauling milk assigned to Class 1 usage from plants in designated supply counties to plants in designated deficit counties. If the supply counties and deficit counties are in different Marketing Areas, the Class 1 area differentials are added to the transportation credit. Transportation credits decrease producer income from Class 1 sales.

    Transportation credits have historically been designed to include a "shortfall" so that there is an incentive for bottling plants to purchase milk within the local area.

(3) Transportation allowances -- These allowances partially compensate for the cost of hauling milk from a producer's ranch to qualified plants in designated receiving areas. They are funded from the producer pool.

Transportation allowances apply to some market milk moving from the dairy farm to processing plants. This occurs when the receiving plant is located in certain deficit areas and processes more than 50 percent of its production into Class 1, Class 2, and/or Class 3 products. The allowances are set: (1) to reflect distance considerations; (2) to reflect local alternative hauling costs; and (3) to encourage close-in milk to be shipped first.

In addition, cooperative members receive transportation allowances on shipments to their cooperative plant, which is located in a deficit area, if that plant supplies 40 percent of its receipts for Class 1 usage.

Most federal orders have location differentials. These location differentials apply to producer payments based on the location of the plant of first receipt. The announced farm-blend price for these federal orders is the blend price for producers delivering milk to the main metropolitan areas (high Class I or fluid use areas). The further the plant of delivery is from the main metropolitan area, the more the location differential lowers the producer's farm-blend prices below the announced blend price for the order.

Marketing Areas

To achieve the objectives of milk pricing and milk pooling, both the Department and USDA establish, modify and consolidate marketing areas. Marketing areas are established on a regional basis where milk production and marketing are similar. When marketing areas were first established in the 1930's, the ability to ship milk was limited due to its perishability. Therefore, milk production and processing tended to be local in nature. Milk supply areas (milksheds) were small and so were the marketing areas.

In the mid 1950's, there were 37 marketing areas in California, each typically composed of one to three counties or sections of counties. In addition, areas of the state were unregulated. Marketing areas were consolidated and unregulated areas were brought into existing marketing areas as technology improved the ability to ship bulk and packaged milk greater distances. Currently, there are two marketing areas and one unregulated area in California.

This same pattern of consolidation has also occurred in federal milk marketing orders (federal orders). In 1960, there were 80 federal orders. Currently are there are only 11 federal orders.

Federal Milk Support Program

In addition to federal and state marketing order programs, the federal government also has a dairy support price program. The federal government establishes a minimum target support price as a floor for the milk dairy farmers sell to processors. This price is currently $10.10 per hundredweight for milk testing 3.5 percent fat (88 cents per gallon of whole milk). The federal government does not buy milk from dairy farmers at the target price. Instead through the Commodity Credit Corporation (CCC), the federal government stands ready, to buy unlimited quantities of butter, nonfat dry milk (NFDM), and Cheddar cheese from processors. It purchases

these products at prices that on average, will, enable the processors to pay dairy farmers the target price. These per-pound, support purchase prices are currently $0.65, $1.01 and $1.10 respectively, for bulk butter, non-fortified NFDM, and block Cheddar cheese.

As provided in the 1996 Farm Bill, the federal support price program was scheduled to be terminated on December 31, 1999. However, legislation in 1999 extended the support price program to December 31, 2000.

SECTION III
STATUTORY CRITERIA FOR ESTABLISHING AND AMENDING THE STABILIZATION AND MARKETING PLANS AND THE POOLING PLAN

In evaluating the operation of the Plans, and in considering proposed modifications to those Plans, the Department seeks to further the legal requirements and important public policies set forth in the Food and Agriculture Code. Among the more relevant statutes are the following - [***Key Sections Are Noted***], while an "*" indicates that a section is specific to one Class of milk or hearing topic and thus may not be a criteria for all hearings:

61801. The production of market milk is hereby declared to be a business affected with a public interest. The provisions of this chapter are enacted in the exercise of the police powers of this state for the purpose of protecting the health and welfare of the people of this state. [***Public Interest***]

61802. The Legislature hereby declares all of the following:

(a) Market milk is a necessary article of food for human consumption.

(b) The production and maintenance of an adequate supply of healthful market milk of proper chemical and physical content, free from contamination, is vital to the public health and welfare, and the production, transportation, processing, and storage of market milk in this state is an industry affecting the public health. [***Public Interest***]

(c) Because of the perishable quality of milk, the nature of milk production, the varying seasonal production and demand factors, and other economic factors affecting the milk industry, the potential exists for economic disruption, in the absence of regulation, in the production, marketing, and sale of market milk which may constitute a menace to the health and welfare of the inhabitants of this state and may tend to undermine sanitary regulations and standards of content and purity, however effectually the sanitary regulations may be enforced**. [*****Public Interest***]

(d) Health regulations alone are insufficient to prevent economic disturbances in the production of milk which may disrupt the future supply of market milk and to safeguard the consuming public from future inadequacy of a supply of this necessary commodity. [***Public Interest***]

(e) It is the policy of this state to promote, foster, and encourage the intelligent production and orderly marketing of commodities necessary to its citizens, including market milk, and to eliminate economic waste, destructive trade practices, and improper accounting for market milk purchased from producers. [***Public Interest***]

(f) It is recognized by the Legislature that the economic factors concerning the production, marketing, and sale of market milk in California may be affected by the national market for milk for manufacturing purposes. [***Farm and Commodity Price Relationships***]

(g) It is recognized by the Legislature that in recent years the supply of manufacturing milk in California, as defined in Section 32509, has consistently declined and continues to decline, and that market milk has virtually supplanted manufacturing milk for manufacturing purposes in this state, and that it is therefore necessary to conform the pricing standards governing minimum producer prices for market milk established under this chapter to current economic conditions.

(h) It is recognized by the Legislature that the levels of retail prices of milk and milk products paid by consumers are affected by a large number of economic and other factors apart from minimum producer prices for market milk established under this chapter, many of which factors are not within the power of the director to regulate or control, particularly since the Legislature repealed provisions concerning establishment of minimum wholesale and retail prices. It is further recognized by the Legislature that, in order to accomplish the purpose of this chapter and to promote the public health and welfare, it is essential to establish minimum producer prices at fair and reasonable levels so as to generate reasonable producer incomes that will promote the intelligent and orderly marketing of market milk in the various classes, and that minimum producer prices established under this chapter should not be unreasonably depressed because other factors have affected the levels of retail prices paid by consumers**. [*Public Interest; Other Factors***]

61805. The purposes of this chapter are to do all of the following:

(a) Provide funds for administration and enforcement of this chapter, by assessment to be paid by producers and handlers of market milk in the manner prescribed in this chapter.

(b) Authorize and enable the director to prescribe marketing areas and to determine minimum prices to be paid to producers by handlers for market milk which are necessary due to varying factors of costs of production, health regulations, transportation, and other factors in the marketing areas of this state. In determining minimum prices to be paid producers by handlers, the director shall endeavor under like conditions to achieve uniformity of costs to handlers for market milk within any marketing area. However, no minimum prices established or determined under this chapter shall be invalid because uniformity of cost to handlers for market milk in any marketing area is not achieved as a result of the minimum producer prices established determined. [***Equity; Other Factors***]

(c) Authorize and enable the director to formulate stabilization and marketing plans, subject to the limitations prescribed in this chapter with respect to the contents of the stabilization and marketing plans, and to declare the plans in effect for any marketing area.

(d) Enable the dairy industry, with the aid of the state, to develop and maintain satisfactory marketing conditions, bring about and maintain a reasonable amount of stability and prosperity in the production of market milk, and provide means for carrying on essential educational activities. [***Public Interest***]

61806. It is the intent of the Legislature that the powers conferred in this chapter shall be liberally construed.

61807. Nothing in this chapter permits or authorizes the development of conditions of monopoly in the production of market milk. In the establishment of the terms and conditions under which market milk shall be purchased from producers, the terms and conditions are those which will, in the several localities and markets of the state, and under the varying conditions of production, insure an adequate and continuous supply of pure, fresh, wholesome market milk to consumers of the market milk. [***Supply***]

*61961. The director shall designate marketing areas which he deems necessary or advisable to effectuate the purposes of this chapter, and in which he finds the conditions affecting the production, handling, and sale of market milk, are reasonably uniform. [***Marketing Areas***]

*61962. The director may establish additional areas, or modify areas previously established, if he deems the establishment or modification of such areas necessary or advisable to effectuate the purposes of this chapter. [***Marketing Areas***]

*61963. If the director finds, after a public hearing in and for each particular marketing area under consideration for consolidation, that conditions of production and handling are reasonably uniform in two or more such marketing areas in which stabilization and marketing plans are in effect, he may consolidate the areas. [***Marketing Areas***]

62062. Each stabilization and marketing plan shall contain provisions whereby the director establishes minimum prices to be paid by handlers to producers for market milk in the various classes. The director shall establish the prices by designating them in the plan, or by adopting methods or formulas in the plan whereby the prices can be determined, or any combination of the foregoing. If the director directly designates prices in the plan, the prices shall be in reasonable and sound economic relationship with the national value of manufactured milk products. If the director adopts methods or formulas in the plan for designation of prices, the methods or formulas shall be reasonably calculated to result in prices that are in a reasonable and sound economic relationship with the national value of manufactured milk products. [***Farm and Commodity Price Relationships***]

In establishing the prices, the director shall take into consideration any relevant economic factors [***Other Factors***], including, but not limited to, the following:

(a) The reasonableness and economic soundness of market milk prices for all classes, giving consideration to the combined income from those class prices, in relation to the cost of producing and marketing market milk for all purposes, including manufacturing purposes. In determining the costs, the director shall consider the cost of management and a reasonable return on necessary capital investment. [***Production Costs***]

(b) That prices established pursuant to this section shall insure an adequate and continuous supply, in relation to demand, of pure, fresh, wholesome market milk for all purposes, including manufacturing purposes, at prices to consumers which when considered with relevant economic criteria, are fair and reasonable. [***Supply, Demand, and Prices to Consumers***]

(c) That prices, including the prices of components of milk, established by the director for the various classes of market milk bear a reasonable and sound economic relationship to each other. [***Farm and Commodity Price Relationships***]

In establishing the prices, the director shall also take into consideration all the purposes, policies, and standards contained in Sections 61801, 61802, 61805, 61806, 61807, 62076, and 62077. [***Other Factors***]

*62062.1. Any designation of a class 1 price by any method or formula that is used to develop class 1 prices paid to producers in the various marketing areas, shall provide, on a calendar year basis, a statewide weighted average minimum price level for a hundred weight of milk testing 3.5 fat and 8.7 solids not fat that is in reasonable relationship with minimum class 1 milk prices paid to producers in contiguous states. If the statewide weighted average class 1 prices paid to producers are not in a reasonable relationship with the class 1 prices paid to producers in contiguous states, the Department shall immediately hold a hearing to consider adjustments to the class 1 prices. [***Farm and Commodity Price Relationships***]

*62074.5 A stabilization and marketing plan may contain provisions necessary to encourage the availability of market milk for those usages for which class 1 and class 2 milk is mandatory. [***Supply***]

*62076. In establishing prices to be paid by handlers to producers for class 2, class 3, class 4a, or class 4b market milk, the director shall take into consideration any relevant economic factors [***Other Factors***], including, but not limited to, the following:

(a) The relative market value of the various products yielded from such market milk. [***Product Value***]

(b) The market price of other milk which may be used for the same purposes that are set forth in such respective classes. [***Farm and Commodity Price Relationships***]

(c) The value of milk used for manufacturing purposes giving consideration to any relevant factors [***Other Factors***], including, but not limited to, product prices, product yields, and manufacturing costs of class 4a or class 4b**.** **[*Product Value, Product Yields, Manufacturing Costs***]

62077. A handler shall not pay any producer less than the applicable price established for the usage to which the market milk, purchased from him is applied pursuant to accounting procedures +established by the director. If the market milk is not applied to any purpose set forth in Article 5 (commencing with Section 61931), then a handler shall not pay any producer less than the lower of the prices established under the applicable stabilization and marketing plan for class 4a and class 4b usage.

62700. The production and distribution of fluid milk and fluid cream is hereby declared to be a business affected with a public interest. The provisions of this chapter are enacted in the exercise

of the police powers of this state for the purpose of protecting the health and welfare of the people of this state. [***Public Interest***]

62701. It is hereby declared that fluid milk and fluid cream are necessary articles of food for human consumption; that the production and maintenance of an adequate supply of healthful milk of proper chemical and physical content, free from contamination, is vital to public health and welfare, and that the production, transportation, processing, storage, distribution and sale of fluid milk and fluid cream in the State of California is an industry, in whole and in part, affecting public health and welfare; that unfair, unjust, destructive and demoralizing trade practices have appeared within this industry and these practices constitute a menace to the health and welfare of the inhabitants of this state by threatening the stability of this industry and by thereby endangering the assurance to the people of the State of California of the maintenance of an adequate supply of this necessary commodity; that it is a policy of this state to promote, foster and encourage the intelligent production and orderly marketing of commodities necessary to its citizens, including fluid milk and fluid cream, and to eliminate speculation, waste, improper marketing, unfair and destructive trade practices, and improper accounting for milk purchased from producers [***Public Interest***].

62702. It is recognized by the Legislature that currently the powers conferred upon the director by Chapter 2 (commencing with Section 61801) are inadequate to enable the dairy industry to develop and maintain satisfactory marketing conditions and bring about and maintain a reasonable amount of stability and prosperity in the production of fluid milk and fluid cream; and that to accomplish these purposes, and particularly to insure to consumers within California an adequate and continuous supply of pure, fresh, and wholesome milk at fair and reasonable prices, including a reasonable estimate of the additional supply which is needed to provide for normal fluctuations in production and in consumer demand for those products, those powers must be supplemented by the powers conferred in this chapter upon the director to equalize gradually the distribution of class 1 usage among the producers of this state. [***Equity; Supply, Demand, and Prices to Consumers***]

62702.1. It is recognized by the Legislature that the provisions for equalization of usages among producers and entry of new producers contained in the Gonsalves Milk Pooling Act, as originally enacted, and the pooling plan adopted thereunder, tended to achieve the purposes of that act; however, the provisions for more rapid equalization and additional new entry would more rapidly and effectively achieve the purposes of this chapter.

It is also recognized that some holders of pool quota and production base initially issued under the Gonsalves Milk Pooling Act have waited for several years for equalization, and that equalized producers have for a number of years not shared in any of the benefits of new quota created by new usage.

It is further recognized that it is necessary to promote and to attempt to assure more rapid equalization of the holders of pool quota issued subsequent to the initial allocation of production bases and pool quota pursuant to this chapter, and to provide for a program for entry and for equalization of new producers.

It is the purpose of the amendments to this chapter to provide a reasonable and equitable mechanism to permit more accelerated equalization, to equalize the holders of pool quota and production base initially issued under the Gonsalves Milk Pooling Act and who are not yet equalized, and to legislatively allocate in a fair and reasonable manner a share of new pool quota created by new usage to existing pool quota holders who are not equalized, to new producers, and to equalized pool quota holders who have not shared in the benefits of the growth of new usage since the original enactment of the Gonsalves Milk Pooling Act and the pooling plan thereunder. [***Equity***]

62720. No pooling plan formulated pursuant to this chapter shall restrict the free movement of fluid milk and no pooling plan shall result in an unequal raw product cost between distributors in the same marketing areas. [***Equity***]

62724. This chapter does not modify the provisions of Chapter 1 (commencing with Section 61301) nor Chapter 2 (commencing with Section 61801) of this part, except as may be necessary to effect the purposes of this chapter. If necessary to effect the purposes of this chapter, the director, in establishing the minimum prices which shall be paid for fluid milk to producers, may establish minimum producer prices applicable at the producer's place of production.

62727. It is the intent of the Legislature that the power conferred in this chapter shall be liberally construed. The provisions of this chapter or subsequent amendment are severable. If any section, subdivision, paragraph, sentence, clause, or phrase of this chapter should be declared or held unconstitutional or invalid for any reason, such unconstitutionality or invalidity shall not affect the validity of any other provision of this chapter. The Legislature hereby declares that it would have enacted each other such section, subdivision, paragraph, sentence, clause, or phrase of this chapter irrespective of the fact that one or more sections, subdivisions, paragraphs, sentences, clauses, or phrases has been declared unconstitutional or invalid. Provided further that any such finding of invalidity or unconstitutionality shall not invalidate, affect or impair pool quotas and production bases heretofore issued under the Gonsalves Milk Pooling Act or pooling plan promulgated thereunder.

SECTION IV
CURRENT INDUSTRY CONDITIONS
RELATIVE TO THE STATUTORY CRITERIA

Public Interest

Legislative Declarations — Below are declarations made by the statutes under which the Pooling Plan and the Stabilization Plans are promulgated regarding the dairy industry effects on the public's health and welfare. The pertinent Food and Agricultural Code sections follow each declaration.

1. The production and distribution of milk is a business affected with a public interest. Thus, the police powers of this state may be used for protection of the public health and welfare (§61801 and §62700).

2. The production and maintenance of an adequate supply of milk is vital to the public health and welfare (§61802(b) and §62701).

3. Health regulations alone are insufficient to prevent economic disturbances in the production of milk. Thus in the absence of economic regulation, the potential exists for economic disruption which may constitute a menace to the public health and welfare (§61802(c) and §61802(d)).

4. By threatening industry stability, unfair, unjust, destructive and demoralizing trade practices constitute a menace to the public health and welfare. Thus, the regulatory provisions should promote intelligent production and orderly marketing, and should eliminate economic waste, destructive trade practices, and improper accounting (§61802(e) and §61701).

5. To promote the public health and welfare, it is essential to establish minimum producer prices at fair and reasonable levels (§61802(h)).

6. The regulatory provisions should result in uniformity of cost to handlers and should not restrict the free movement of fluid milk (§61805(b) and §62720).

7. The regulatory provisions should help develop and maintain satisfactory marketing conditions, and bring about and maintain a reasonable amount of stability and prosperity (§61805(d)).

Dynamic Industry Conditions – The relevant statutes recognize that conditions affecting the California dairy industry are subject to change over time. As such, the Department's regulation of the California dairy industry in accordance with the governing statutes and the public interest must

be modified as appropriate when, as necessary, to address issues created by changing conditions. Since the beginning of economic regulation in 1936, much has changed:

- Dramatic increases in total milk production have been matched by equally dramatic decreases in numbers of dairy farms and dairy processing plants. From 1936 to 1998, there has been a seven-fold increase in milk production from 4.2 billion pounds to 27.6 billion pounds. Data on numbers of producers and processors is not as extensive. However, from 1940 to 1998 there was an 88 percent decline in number of dairy farmers from 19,428 to 2,246. From 1960 to 1998, the number of dairy processors declined about 83 percent from about 600 to about 100. In addition to the decline in numbers, dairy processors have become more specialized. In 1960, many of the 600 processors made multiple class products. In 1995, most of the 100 processors specialize in only one or two classes. (See HE#11* and HE#12*.)

- The historic declines in number of dairy farms dairy farms and processing plants do not capture the extent of the consolidation that has occurred in recent years. In 1985 in California, there were 7 processing cooperatives each with a single plant; there were also 12 strictly marketing cooperatives. Today, there are only 4 processing cooperatives with as many as five plants each; there are also 8 strictly marketing cooperatives. In 1985, 18 of the cooperatives were strictly California based, while one had a few members in Northwestern Nevada. Today, the nation's three largest dairy cooperatives all have a presence in California. Two are headquartered out of state, while the nation's second largest cooperative is strictly California based.

- California has always had processing plants owned by national proprietary firms. However in the last few years, there has been a major consolidation of fluid plants both nationally and in California. The nation's two largest fluid proprietary processors both have established a major presence in California through acquisition of former California firms. There has also been a reversal of the trend toward grocery chains having their own integrated fluid milk plants.

- As a percent of total milk fat production, fluid milk products declined from 65 percent in 1952 to 14 percent in 1998.

- The declining importance of milk fat has resulted in changes in producer pricing. Pricing was fat based until 1955; fat/skim based from 1955 to 1962; mixed fat/skim and fat/solids-not-fat based from 1962 to 1969; and fat/solids-not-fat based since 1969.

- The number of classes of milk have changed with changes in production and marketing of dairy products: four classes prior to 1950; three classes from 1950 to 1968; four classes from 1968 to 1982; and five classes since 1982.

- Technology has improved the ability to ship bulk and packaged milk greater distances. Marketing areas were consolidated to reflect this technology. In the mid 1950's, there were 37 marketing areas in California; currently, there are only two.

A dynamic industry requires that the Department ensure that economic regulations are modified as and when necessary to ensure that the Pooling Plan and the Stabilization Plans continue to implement important state policies and promote the public health and welfare.

Supply, Demand, and Prices to Consumers

Supply

Milk Production and Supply. Many factors ultimately determine milk production. However, the most obvious ones are the number of milk cows and the milk production per cow. More complex factors (output prices, input costs, weather and environmental) all affect cow numbers and production per cow.

Table 2 shows that California and other western states have been increasing milk cow numbers, while in the rest of the nation cow numbers have been declining. The net result is a decline for the nation as a whole. From 1988 to 1998, California dairy cow numbers increased at a 2.6 percent annualized rate, with a 3.3 percent increase in the last twelve months. During this same period, California's share of U.S. total cow numbers increased from 10.6 percent to 16.1 percent.

Table 2 **- COWS ON FARM**

	Calif.	Other Western 1/	Other U.S.	Total U.S.	Calif. Share	Other Western Share
Milk Cows in Thousands						
1988	1,083	804	8,375	10,262	10.6%	7.8%
1989	1,104	821	8,201	10,126	10.9%	8.1%
1990	1,135	867	8,125	10,127	11.2%	8.6%
1991	1,155	884	7,953	9,992	11.6%	8.8%
1992	1,158	925	7,752	9,835	11.8%	9.4%
1993	1,210	965	7,414	9,589	12.6%	10.1%
1994	1,235	1,040	7,226	9,500	13.0%	10.9%
1995	1,254	1,095	7,109	9,458	13.3%	11.6%
1996	1,264	1,128	6,969	9,361	13.5%	12.0%
1997	1,389	1,156	6,707	9,252	15.0%	12.5%
1998	1,401	1,175	6,582	9,158	15.3%	12.8%
1998-99 2/	1,476	1,230	6,460	9,166	16.1%	13.4%
Percent Change						
10 year ave. 3/	2.6%	3.9%	-2.4%	-1.1%		
Current 4/	3.3%	4.3%	-1.2%	0.2%		

1/ Arizona, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah and Washington
2/ 12 months ending September 1999
3/ 1988 to 1998
4/ 12 months ending September 1999 compared to 12 months ending September 1998

Sources: HE#8, HE#34*

Table 3 shows that production per cow has been increasing all across the county, especially in the last twelve months. California is among the top states in production per cow. However, so are the other western states, and the rest of the nation is closing the difference. In 1988, California production per cow was 27 percent higher than the rest of the nation. In 1999 to date, it is only 21 percent higher.

Table 3 - **MILK PER COW**

	Calif.	Other Western 1/	Other U.S.	Total U.S.	Calif. Relative to Other US	Other West. Relative to Other US
Milk per Cow in Pounds per Year						
1988	**17,181**	**16,627**	**13,514**	**14,145**	**127%**	**123%**
1989	**17,591**	**16,790**	**13,539**	**14,244**	**130%**	**124%**
1990	**18,456**	**17,353**	**13,824**	**14,645**	**134%**	**126%**
1991	**18,534**	**17,663**	**14,014**	**14,860**	**132%**	**126%**
1992	**19,080**	**18,120**	**14,550**	**15,419**	**131%**	**125%**
1993	**18,948**	**18,169**	**14,853**	**15,704**	**128%**	**122%**
1994	**20,439**	**18,795**	**15,070**	**16,175**	**136%**	**125%**
1995	**20,211**	**18,713**	**15,416**	**16,433**	**131%**	**121%**
1996	**20,458**	**19,054**	**15,351**	**16,487**	**133%**	**124%**
1997	**19,894**	**19,446**	**15,878**	**16,926**	**125%**	**122%**
1998	**19,705**	**19,894**	**16,174**	**17,192**	**122%**	**123%**
1998-99 2/	**20,091**	**19,986**	**16,566**	**17,593**	**121%**	**121%**
Percent Change						
10 year ave. 3/	**1.4%**	**1.8%**	**1.8%**	**2.0%**		
Current 4/	**4.4%**	**2.4%**	**2.1%**	**2.7%**		

1/ Arizona, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah and Washington
2/ 12 months ending September 1999
3/ 1988 to 1998
4/ 12 months ending September 1999 compared to 12 months ending September 1998

Sources: HE#8, HE#34*

Table 4 shows that with the combination of increasing cow numbers and increasing production per cow, California and other western states have had increasing milk production. In the rest of the nation, milk production has been decreasing. The net result is an increase for the nation as a whole. From 1988 to 1998, California milk production increased at a 4.0 percent annualized rate, with a 7.8 percent increase in the last twelve months. During this same period, California's share of U.S. milk production increased from 12.8 percent to 18.4 percent.

Table 4 - **MILK PRODUCTION**

		Calif.	Other Western 1/	Other U.S.	Total U.S.	Calif. Share	Other Western Share
Milk Production in Millions of Pounds per Year							
1988		**18,607**	**13,368**	**113,177**	**145,152**	**12.8%**	**9.2%**
1989		**19,420**	**13,785**	**111,034**	**144,239**	**13.5%**	**9.6%**
1990		**20,947**	**15,045**	**112,321**	**148,313**	**14.1%**	**10.1%**
1991		**21,407**	**15,614**	**111,456**	**148,477**	**14.4%**	**10.5%**
1992		**22,095**	**16,761**	**112,791**	**151,647**	**14.6%**	**11.1%**
1993		**22,927**	**17,533**	**110,122**	**150,582**	**15.2%**	**11.6%**
1994		**25,242**	**19,537**	**108,885**	**153,664**	**16.4%**	**12.7%**
1995		**25,344**	**20,491**	**109,590**	**155,425**	**16.3%**	**13.2%**
1996		**25,859**	**21,493**	**106,979**	**154,331**	**16.8%**	**13.9%**
1997		**27,628**	**22,479**	**106,495**	**156,602**	**17.6%**	**14.4%**
1998		**27,607**	**23,376**	**106,458**	**157,441**	**17.5%**	**14.8%**
1998-99	**2/**	**29,655**	**24,583**	**107,019**	**161,257**	**18.4%**	**15.2%**
Percent Change							
10 year ave.	**3/**	**4.0%**	**5.7%**	**-0.6%**	**0.8%**		
Current	**4/**	**7.8%**	**6.8%**	**0.8%**	**2.9%**		

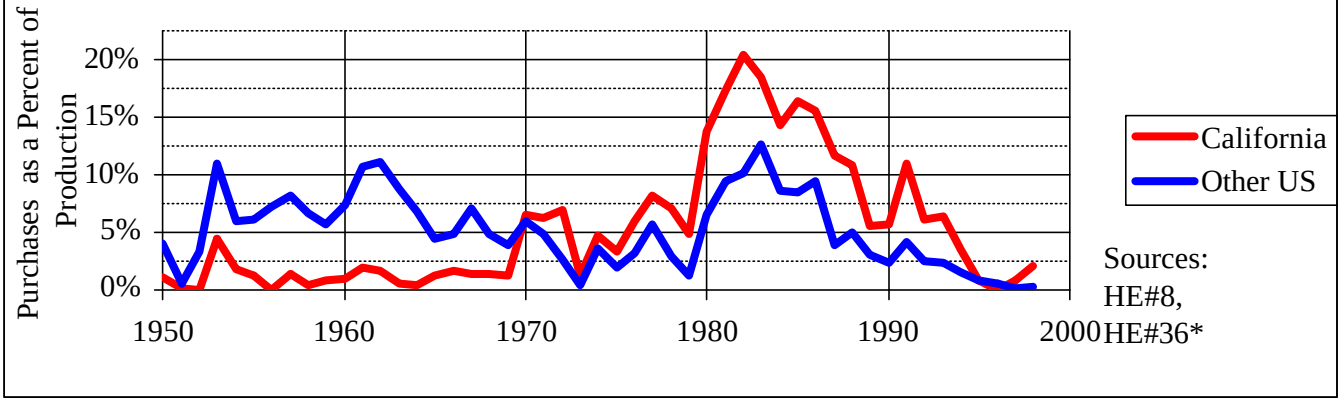
1/ Arizona, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah and Washington
2/ 12 months ending September 1999
3/ 1988 to 1998
4/ 12 months ending September 1999 compared to 12 months ending September 1998

Sources: HE#8, HE#34*

Federal Support Purchases[4] **and Supply**. Federal purchases of dairy products through the Commodity Credit Corporation (CCC) are a reflection of general supply conditions. Generally, when supplies are long, CCC purchases are up. When supplies are short, CCC purchases are down. Historic CCC purchases have been highly variable. Relative to total production, total US CCC purchases were large for brief periods in the mid 1950's and early 1960's. CCC purchases from both California and the rest of the US were large for an extended period in the 1980's. In 1983, CCC purchases peaked at 13.2% of total US milk production. Before that time, California did not produce enough manufactured products to have a significant impact on CCC purchases. However for the 1990's, purchases from both California and the rest of the US have been below historic averages and continue to trend downwards. Since 1995, CCC purchases have represented less then 1.0% of total US milk production. As of December 24, 1999, there were no uncommitted federal inventories of butter, nonfat dry milk (NFDM) or Cheddar cheese (HE#35). (See Figure 1.)

[4]The operations of this program are discussed above in **"Section II"** under **"Federal Milk Support Program"** which begins on page 9.

Figure 1 - **CCC PURCHASES**
As a Percent of Production, Milk Equivalent Basis for Total Solids
California and Other US, Annual, 1950 to 1998



Demand

Table 5 shows the relative change in pooled milk utilization. Classes 1, 2 and 3 have lost production shares to Classes 4a and 4b.

Table 5 - **POOL UTILIZATION**
California Total Milk Solids

		Class 1	Class 2	Class 3	Class 4a	Class 4b	Total
Market Share based on Fat plus SNF Utilization							
1988		**36%**	**6%**	**6%**	**25%**	**26%**	**100%**
1989		**35%**	**6%**	**6%**	**25%**	**29%**	**100%**
1990		**33%**	**5%**	**6%**	**26%**	**30%**	**100%**
1991		**32%**	**5%**	**6%**	**27%**	**30%**	**100%**
1992		**30%**	**5%**	**5%**	**28%**	**31%**	**100%**
1993		**28%**	**5%**	**5%**	**31%**	**31%**	**100%**
1994		**25%**	**5%**	**6%**	**31%**	**33%**	**100%**
1995		**24%**	**5%**	**6%**	**31%**	**34%**	**100%**
1996		**24%**	**5%**	**6%**	**29%**	**36%**	**100%**
1997		**22%**	**5%**	**6%**	**31%**	**37%**	**100%**
1998		**22%**	**5%**	**6%**	**28%**	**38%**	**100%**
1998-99	**1/**	**21%**	**5%**	**5%**	**31%**	**39%**	**100%**
Percent Change in Utilization by Class							
10 year ave.	**2/**	**-0.3%**	**2.1%**	**3.4%**	**5.6%**	**8.5%**	**4.4%**
Current	**3/**	**0.3%**	**-0.9%**	**-2.6%**	**17.8%**	**11.2%**	**9.2%**

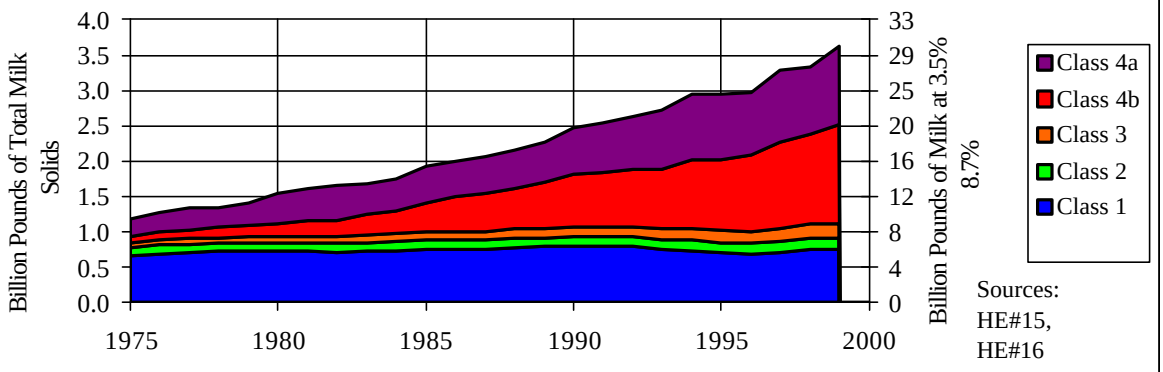
1/ 12 months ending October 1999
2/ 1988 to 1998
3/ 12 months ending October 1999 compared to 12 months ending October 1998

Sources: HE#7, HE#15*, HE#16*

The bottom of Table 5 and Figure 2 show the absolute change in pooled milk utilization. Classes 1, 2 and 3 have grown more slowly than total pooled milk production; Class 1 has shown absolute

declines at times. This is further shown by the steady decline in per capita consumption of fluid milk products (whole, 2% lowfat, 1% lowfat and skim). From 1979 to 1998, annual per capita consumption declined from 30.8 gallons to 22.3 gallons. There were year-to-year declines every year except 1984. (See HE#12.)

Figure 2 - **HOW MILK IS UTILIZED**
California, 1975 to 1999
(1999 data based on November 1998 through October 1999)



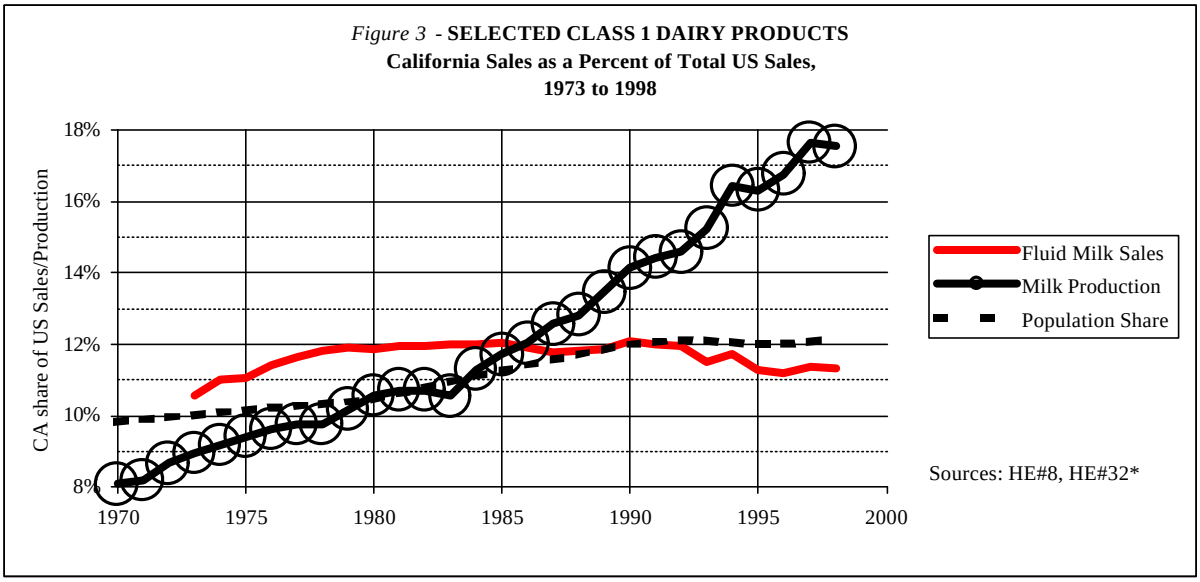
Sources:
HE#15,
HE#16

Unlike fluid milk products, manufactured dairy products have shown strong growth in commercial demand. This is evidenced by the rapid growth California manufacturers have experienced in production of Class 4a and 4b dairy products, by robust and volatile prices on the national market for manufactured products, and by the low levels of CCC purchases from California.

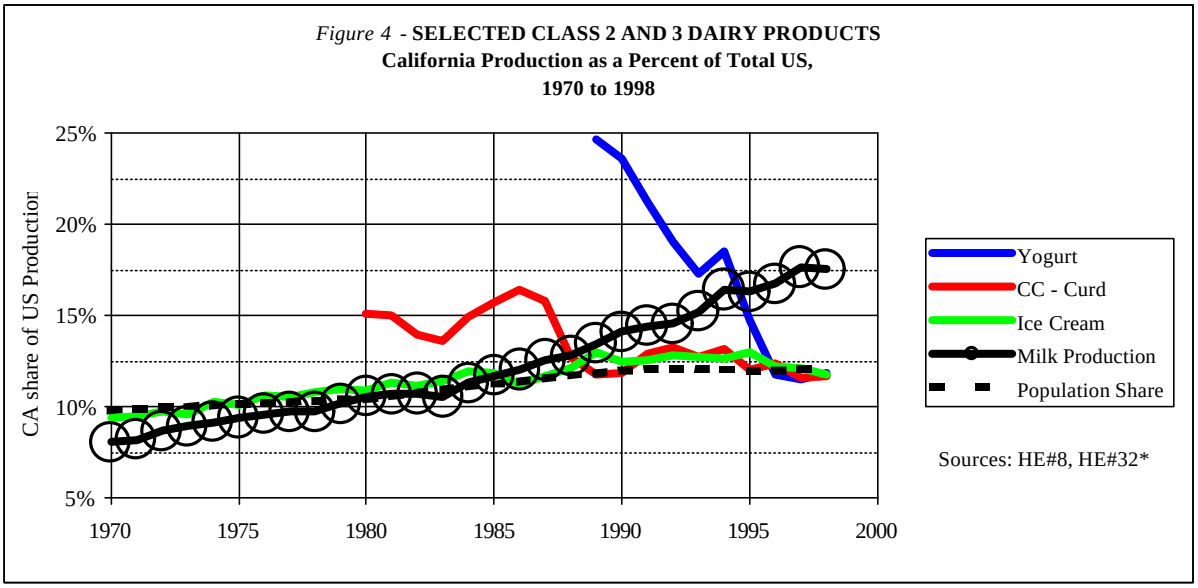
Commercial disappearance is equal to beginning dairy inventory plus production less both sales to the Commodity Credit Corporation and ending inventory of all dairy products (fluid and manufactured). On a national basis, commercial disappearance was up in 1988 and the first six months of 1999. Commercial disappearance is projected to increase again in 2000. (See HE#38.)

From 1970 to 1998, California's share of national milk production increased from 8.1 percent to 17.5 percent. Over that same period, California's share of the nation's population increased from 9.8 percent to 12.1 percent. California's share of various dairy products has also changed over time. Some have tracked the increases in milk production; others have been more associated with population trends. (See Figures 3, 4 and 5.)

Before 1985, California's share of the national fluid market exceeded California's share of both milk production and population. Either Californians drank more milk than the national average, or California processors supplied fluid markets in contiguous states. Since 1985, California's share of the fluid market has lagged below both milk production and population. Either per capita consumption has declined, or processors in contiguous states supplied California fluid markets. (See Figure 3.)

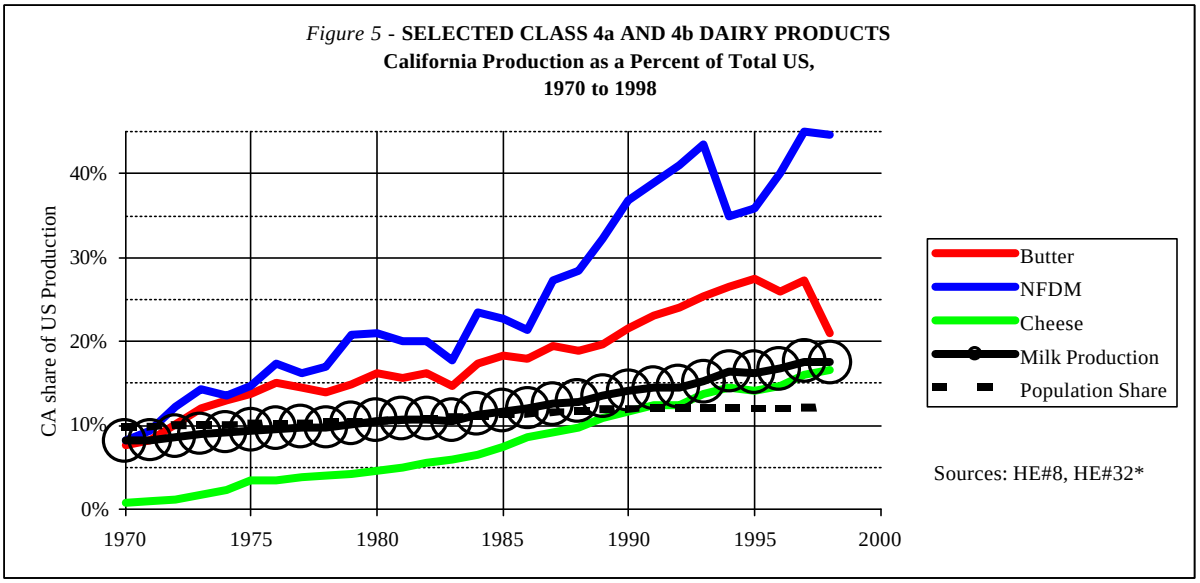


Since 1970, California's share of the national ice cream production has matched California's population share. Before 1995, California's shares of yogurt and cottage cheese curd greatly exceeded California's share of both milk production and population. Since it is not reasonable that Californians could consume these levels of yogurt and cottage cheese, California processors must have been supplying markets in contiguous states. After 1995, California processors evidently lost these markets to out-of-state processors. (See Figure 4.)



Since 1970, California's share of the national butter and nonfat dry milk (NFDM) production has exceeded California's share of both milk production and population. Before 1990, California's share of cheese production lagged both its milk production and population shares. However, California became self sufficient in total cheese production in the early 1990's. Current trends

indicate that its share of cheese production will soon exceed its share of national milk production. (See Figure 5.)

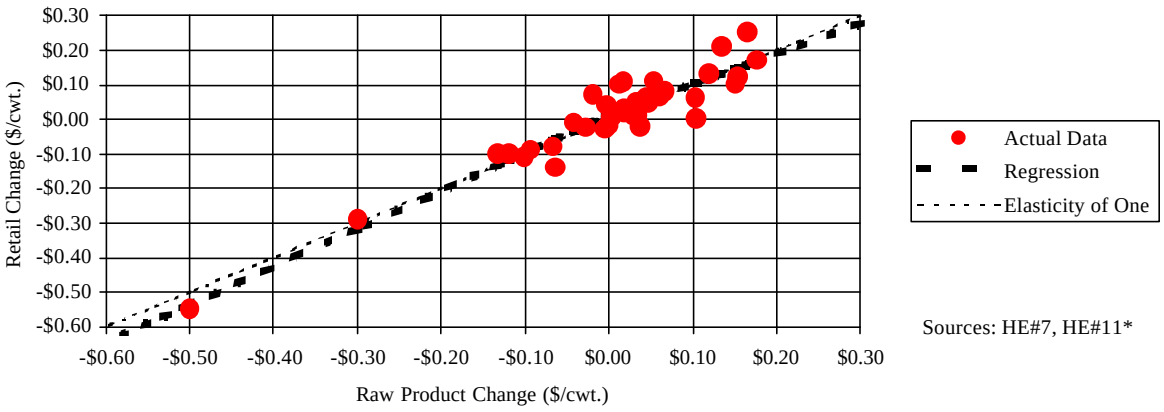


Prices to Consumers

From 1938 to 1978, the Department regulated retail milk prices. However, the Department no longer has the statutory authority for such regulation. The Department does maintain and publish data on retail milk prices (see HE#11). There is a relationship between changes in the farm and retail price of milk. Historically the relationship was much stronger when farm prices were increasing. When farm prices decreased, the price change at retail did not tend to decrease at a corresponding rate. This historic view is supported by the analysis in Attachment D of the "*Economic Basis for Findings and Conclusions*" that resulted from the March 31, 1993, Class 1 hearing (HE#43).

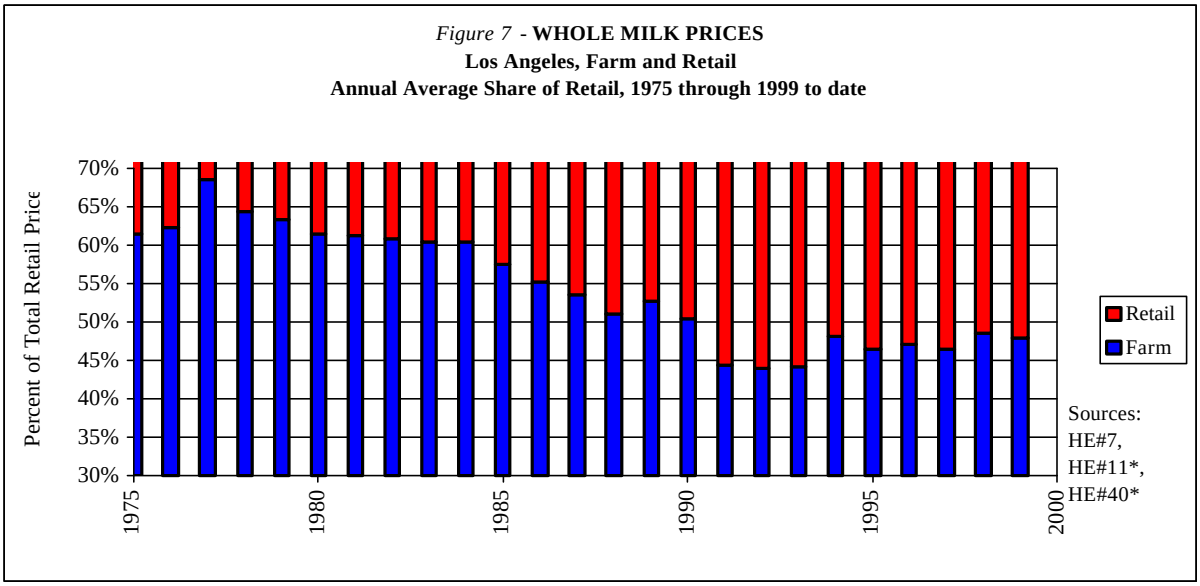
However, recent data suggests that this trend may no longer be true: "*California Milk Marketing Margins*" by Hoy F. Carmen, Department of Agriculture and Resource Economic, University of California, Davis. Professor Carmen found " *. . . that there is a strong direct relationship between retail and farm level milk prices – retailers increase and decrease their prices equally in response to f.o.b. price increases and f.o.b. price decreases.*" This conclusion seems to be born out by the relationship between farm and retail prices for Los Angeles as shown in Figure 6. The change in raw product cost explains 90 percent of the changes in retail prices.

Figure 6 - **RETAIL PRICE CHANGES**
Relationship Between Raw Product and Retail Price Changes
Los Angeles, July 1993 to May 1999



Sources: HE#7, HE#11*

The Departmental data on prices reflects a growing spread between farm prices received by producers and retail prices paid by consumers (see Figure 7). The data also reflects a growing spread between the lowest and highest retail price for comparable fluid milk products (see HE#11*). In 1975, the farm price made up 61 percent of the retail price of whole milk. It rose to 68 percent in 1977, then declined to a low of 44 percent in 1992. In 1999 to date, the farm price made up 48 percent of the retail price (see Figure 7). This pattern is consistent with the two analyses in the two previous paragraphs. The analysis done for the 1993 hearing was based on retail data when the farm price fell seventeen percent from 61 to 44 percent of the retail price. The analysis done by Professor Carmen and the data in Figure 6 was based on retail data when the farm price only changed four percent from 44 to 48 percent of the retail price.



Farm[5] and Commodity Price Relationships

Background

Between 1978 and 1987, national dairy farm prices were extremely stable. The federal support price program cleared the market when production exceeded demand by building federal inventories of butter, nonfat dry milk (NFDM) and Cheddar cheese. These federal inventories were available to balance the needs of the commercial market whenever production fell short of demand.

During this period, because of the heavy influence in the marketplace of the relatively high federal, dairy support-price levels, commodity prices were stable from month to month. California farm prices were tied directly to commodity prices, and federal milk marketing order farm prices were tied indirectly to commodity prices. Thus, stable commodity prices resulted in stable California farm prices and in stable, federal-order farm prices.

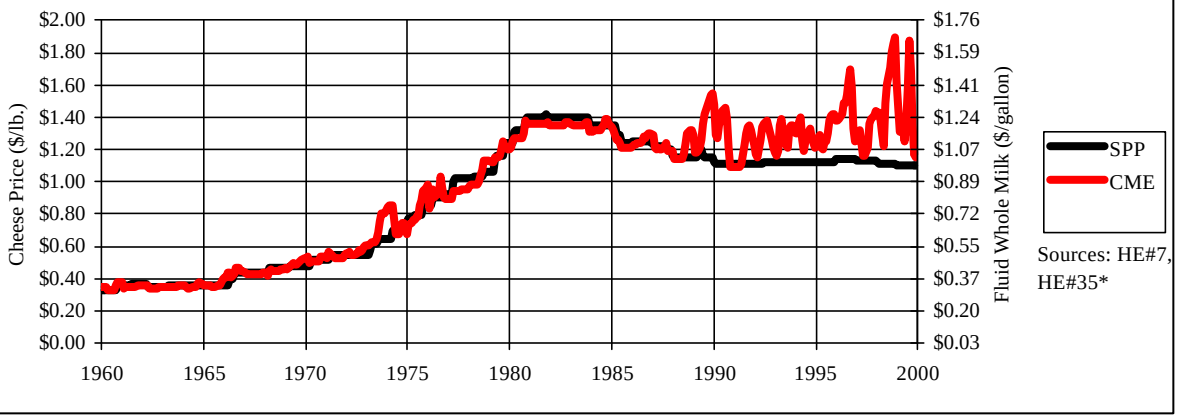
Since 1987, the decrease in the federal target support price[6] (and the accompanying decrease in support purchase prices for butter, NFDM and Cheddar cheese) eliminated the massive federal inventories of butter, NFDM and Cheddar cheese. The lower federal inventories of butter, NFDM and Cheddar cheese were no longer adequate to stabilize the market by helping to balance seasonal supply and demand. Consequently, whenever production of butter, NFDM or Cheddar cheese has been inadequate to satisfy commercial demand, dairy commodity prices have been quite volatile. This situation has led to volatility, both in California farm prices, and in federal-

[5]Strictly speaking, the relationship to federal order farm prices belongs below in this section under **"Other Factors"** which begins on page 31. However, it is easier to discuss in the context of the relationships among California farm prices and national commodity prices.

[6]The target support price and the support purchase prices are discussed above in **"Section II"** under **"Federal Milk Support Program"** which begins on page 9.

order farm prices. (See Figure 8 – to get the fluid whole milk price, the current Class 1 formula was used with the assumption that the butter price was equal to the cheese price.)

Figure 8 - **PRICES FOR CHEESE AND FLUID MILK**
How Level of Federal Support Price (SPP)
Affects Volatility of Commercial Prices (CME)
Monthly, 1960 to 1999



Sources: HE#7, HE#35*

Current Price Relationships among California Farm Prices, National Commodity Prices, and Federal Order Farm Prices

For all of 1999, California's Class 1 price weighted by utilization exceeded the average Class I prices in contiguous states (see Table 6). For eleven of the twelve months in 1999, the Northern California Class 1 price exceeded the Class I prices in Oregon and Eastern Nevada (see Figure 9). For ten of the twelve months in 1999, the Southern California Class 1 price exceeded the Class I prices in Arizona and Southern Nevada (see Figure 10).

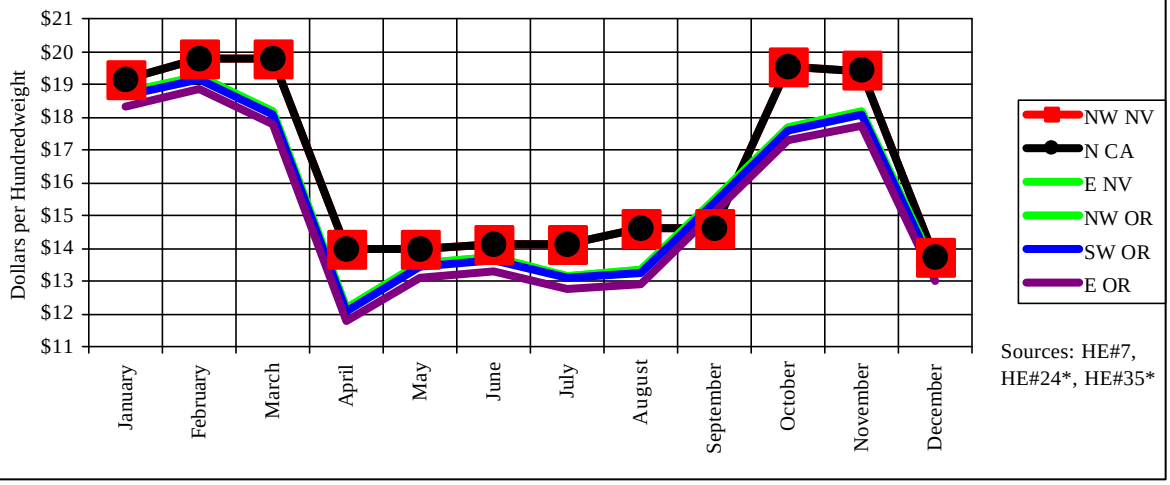
Table 6 - **1999 ANNUAL AVERAGE FLUID MILK PRICES**
California Statewide Weighted Average Class 1 Prices Compared to Class I Prices in Contiguous States

		Differential above BFP		
	Area	Yearly	Jan. to Sep.	Oct. to Dec.
$16.53	California 1/			
$16.39	Northwest Nevada 2/			
$16.18	Arizona	$2.52		
$15.56	East Nevada	$1.90		
$15.56	Northwest Oregon	$1.90		
$15.48	Southwest Oregon	$1.82		
$15.21	South Nevada	$1.55	$1.60	$1.40
$15.16	East Oregon	$1.50		

1/ Weighted by utilization.
2/ The Northwest Nevada price is set equal to the Northern California price.

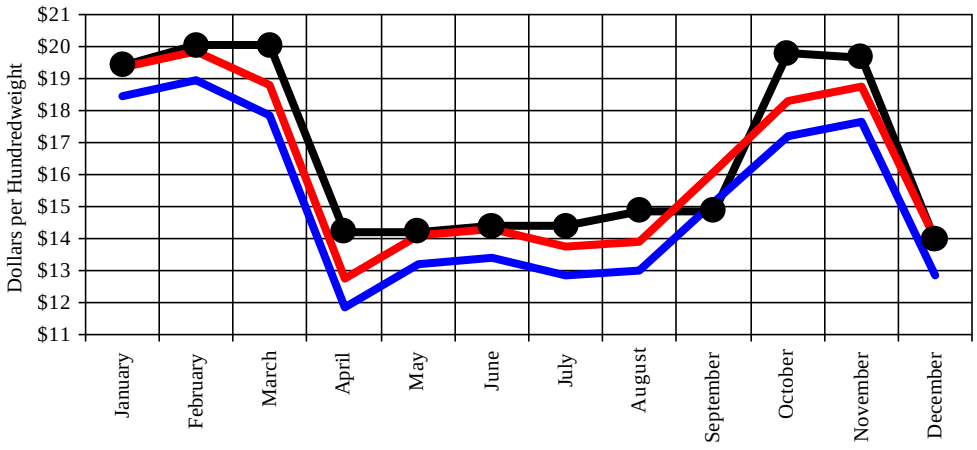
Sources: HE#7, HE#24*, HE#35*

Figure 9 - **FLUID MILK PRICES**
Northern California and Contiguous States, Monthly, 1999



Sources: HE#7, HE#24*, HE#35*

Figure 10 - **FLUID MILK PRICES**
Southern California and Contiguous States, Monthly, 1999



Sources: HE#7, HE#24*, HE#35*

Nationally, volatile farm prices have become the norm. In the middle of 1998, declining milk production resulted in significant price increases, above seasonal norms, in dairy commodity prices. However, in 1999 milk production levels rebounded. Butter, block Cheddar cheese and nonfat dry milk (NFDM) prices are all below year ago levels, respectively, having fallen 53, 25 and 6 percent from October 1998 to October 1999. (See HE#37 and HE#25.) Because farm prices are tied directly or indirectly to commodity prices, declining commodity prices have translated into lower farm prices. California and federal prices for milk used to make manufactured products are down 26 to 36 percent. Average producer prices are down as well. Changes in producer farm prices must be compared to changes in the on farm cost of producing milk. Comparing the September-October 1998 to September-October 1999, California production costs are down two percent (see HE#20). (See Table 7.)

Table 7 - **DAIRY PRICES AND COSTS**

Commodity, Processor and Producer Prices, and Producer Costs, October 1998 compared to October 1999

		October 1998	October 1999	Change $/unit	Change percent
Commodity Prices					
CME Cheese	$/lb.	$1.81	$1.35	-$0.46	-25%
CME Butter	$/lb.	$2.41	$1.12	-$1.29	-53%
California NFDM	$/lb.	$1.08	$1.01	-$0.07	-6%
Processor Prices					
San Francisco California					
Class 1	$/gallon	$1.51	$1.68	$0.17	11%
	$/cwt.	$17.58	$19.53	$1.95	11%
Class 2	$/cwt.	$18.07	$13.32	-$4.75	-26%
Class 3	$/cwt.	$18.02	$13.27	-$4.75	-26%
Class 4a	$/cwt.	$17.60	$11.62	-$5.97	-34%
Class 4b	$/cwt.	$16.37	$11.66	-$4.71	-29%
Portland Oregon					
Class I	$/cwt.	$16.89	$17.69	$0.80	5%
Class II	$/cwt.	$15.29	$16.09	$0.80	5%
Class III	$/cwt.	$16.04	$11.49	-$4.55	-28%
Class III-A	$/cwt.	$18.12	$11.61	-$6.51	-36%
Producer Prices at Test					
California Grade A Price	$/cwt.	$18.08	$13.61	-$4.47	-25%
US Grade A Price	$/cwt.	$17.80	$15.60	-$2.20	-12%
Producer Costs					
CDFA					
Cost Index 1/	$/cwt.	$12.98	$12.66	-$0.32	-2%
USDA - Economic Costs					
Upper Midwest 2/	$/cwt.	$18.94	$17.74	-$1.20	-6%
Pacific 3/	$/cwt.	$14.48	$11.94	-$2.54	-18%

1/ Cost are for September-October of each year.
2/ Minnesota, Michigan and Wisconsin
3/ Arizona, California and Washington

Sources: HE#7, HE#11*, HE#17*, HE#24*, HE#35*, HE45c, HE#45e

Production Cost

Department's Production Cost Data

The Department conducts cost of production surveys for the five dairy regions within California. Comparing the twelve months ending October 1998 to the twelve months ending October 1999, the statewide weighted average on farm cost of milk production has decreased $0.56 per hundredweight (see HE#17 and HE#18). This $0.56 decrease in production costs must be viewed in terms of changes in producer farm prices. For the same relative periods, producer farm prices for quota, base and overbase milk decreased $0.10 per hundredweight (see HE#7 and HE#26).

The $0.56 decrease was the result of cost decreases for feed (-$0.50) and marketing (-$0.01), which were offset by cost increases for labor (+$0.01), heard replacement (+$0.04) and operations (+$0.03). The feed cost decreases were in part due to decreases in alfalfa and grain prices of, respectively $12 and $9 per ton. In addition, all cost decreases were in part due to an increase in milk production from 55.8 to 57.8 pounds per cow per day.

Production costs are quite variable, both within and among the five production cost regions. The following summaries for September and October 1999, the average cost, the ranges of costs and share of the state's total milk production for each of the five regions (see HE#17 and HE#18):

	Average	Low to High	Production Share
Del Norte-Humboldt	$12.65	$10.21 to $22.52	0.8%
North Bay	$12.14	$10.10 to $15.05	3.2%
North Valley	$12.04	$9.56 to $16.31	35.6%
South Valley	$11.64	$9.47 to $16.44	39.5%
Southern California	$11.55	$9.79 to $13.40	20.9%
Whole State	$11.79	$9.47 to $22.52	100%

USDA Production Cost Data

USDA conducts production cost surveys for the six largest dairy regions in the United States. The Department conducts cost of production surveys for the five dairy regions within California. The Department cost of production cannot be directly compared to USDA production costs because different methodologies are used. However, a comparison of USDA production costs in the Pacific Region of Arizona, California and Washington to the Department's average cost of production for California shows that both have the same pattern of change. California produced 78 percent of the milk in the Pacific Region in 1998. Therefore, a comparison of USDA production costs in the Pacific Region to production costs in other regions will give a good indication of how competitive California's cost of production is with the rest of the country. Such a comparison shows that for 1997 the Pacific Region economic production costs averaged $2.49 per

hundredweight less than the lowest cost in any other region. For 1982 through 1997, these same cost differences ranged from a low of $1.42 below all other regions in 1985 to a high of $3.75 below all other regions in 1996. This indicates that the Pacific Region, and therefore the state of California, has one of the lowest production costs in the nation, if not the lowest production cost. (See HE#8, HE#12, HE#17 through HE#20, and HE#39.)

Other Factors

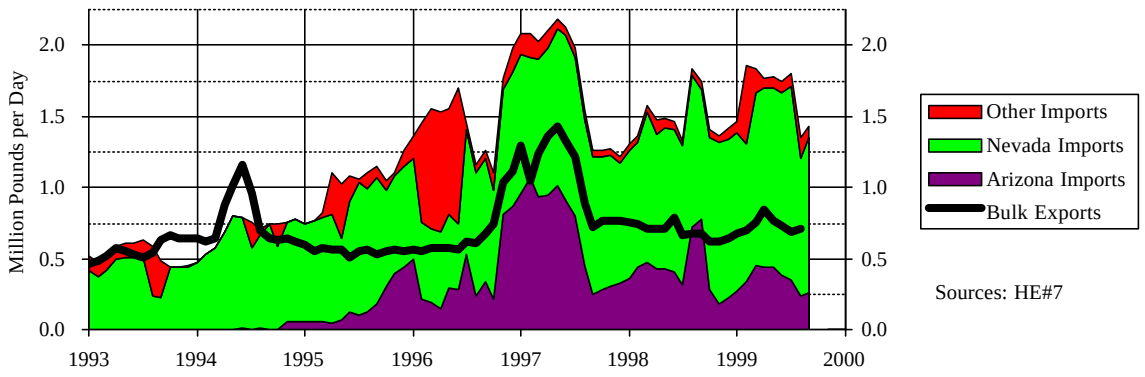
In addition to the above, in establishing the provisions of the Stabilization and Pooling Plan, the Department "*shall take into consideration any [other] relevant economic factors"* not specifically listed in the Food and Agricultural Code (§62802(h), §61805(b), §62062, §62076 and §62076(c)).

At recent hearings (see HE#43 for), independent processors and distributors in the Northern California Marketing Area, have documented their competitive disadvantage in competing with packaged milk from processors in Oregon regulated under a federal order. The California processors have contended that they are at a disadvantage because California fluid milk prices are higher than prices in Oregon.

Bulk milk shipments into and out of California are small relative to California's total milk production. Exports have never exceeded two percent of total production. Imports have never exceeded three percent of total production, although 90 percent of the imported milk is used in Class 1 products. Yet in the last few years, there has been a dramatic increase in the volume of imported milk. From 0.5 million pounds per day in January 1993, imports rose to 2.2 million pounds in May 1997 and are currently 1.8 million pounds. Over the same period, exports rose from 0.5 million pounds to a peak of 1.4 million pounds and are currently 0.7 million pounds.

Historically, over 90 percent of bulk milk imports came from Nevada. However, starting in 1995, significant volumes of milk began coming in from Arizona, peaking at 52 percent of all California imports in February 1997. Currently, about 72 percent of the imports come from Nevada and 23 percent from Arizona. (See Figure 11 – note that the term "*Other*" potentially includes milk from Arizona and Nevada whose origins was not reported correctly to the Department. Much of the "*Other*" milk in early 1996 is probably from Arizona and/or Nevada.)

Figure 11 - **BULK MILK IMPORTS TO AND EXPORTS FROM CALIFORNIA**
Imports by State of Origin, Monthly, 1993 to 1999



Equity[7]

The Pooling Plan for Market Milk is established under the authority of Chapter 3, Part 3, Division 21 of the Food and Agricultural Code. The title of Chapter 3 is "Equalization Pools". The words equalize, equalized, equalization and equitable all appear at the beginning of Chapter 3 in Sections 62702 and 62702.1. However, while the Code does speak of **equity** the Code does not provide for **equal** prices to all producers. When considering changes to the Stabilization Plans and the Pooling Plan, within the constraints of the Quota/Overbase system[8] and consistent with the public policies enacted by the legislature, the Department seeks to treat all producers marketing milk in California evenhandedly and as fairly as possible. Both Chapter 2 (Stabilization Plans) and Chapter 3 (Pooling Plan) also address equity issues among processors. Section 61805(b) states that classified prices should **attempt** to result in uniform costs for all processors in a marketing area; however, the prices are not required to result in uniform costs. Section 62720 states that pooling plans shall result in uniform costs for all processors in a marketing area. The two sections are not in conflict. Section 61805(b) acknowledges that processors, with plants in different marketing areas with different prices, may compete to some extent in the same marketing area.[9] However, Section 62720 requires that the Pool Plan insure that every processor within the same marketing area have the same raw product costs for milk components.

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[7]equity (èk´wî-tê) noun. The state, quality, or ideal of being just, impartial, and **fair**. [Middle English equite, from Old French, from Latin aequitâs, from aequus, even, **fair**.] The American Heritage Dictionary of the English Language, Third Edition is licensed from Houghton Mifflin Company. Copyright © 1992 by Houghton Mifflin Company. All rights reserved.

[8]The Quota/Overbase system is discussed above in **"Section II"** under **"Milk Pooling"** which begins on page 6.

[9]Competition among processors in different marketing areas may lead to market area consolidation. See the discussion of marketing areas above in **"Section II"** under **"Marketing Areas"** which begins on page 9.

Appendices

A-1: Tentative List of Exhibits, Hearing scheduled for January 31, 2000, Class 1 Pricing Formula

A-2: Federal Orders Prior to January 2000

A-3: California Milk Pricing Formulas

Appendix A-1:
Tentative List of Exhibits,
Hearing scheduled for January 31, 2000,
Class 1 Pricing Formula

The following is a tentative list of the Department's exhibits. Please note that all previous issues of documents 9 through 40 are entered by reference and marked with an "*":

1. Notice of Public Hearing signed August 20, 1999 by A. J. Yates Deputy Secretary;
2. Declaration of Service By Mail on August 23, 1999 of the Notice of Public Hearing;
3. Declaration of Posting of the Notice of Hearing on the Director's public bulletin board on August 20, 1999;
4. Alternative proposals:
   a. Dairy Institute of California dated September 7, 1999;
5. Analysis of Alternative Class 1 Concepts and Proposals;
6. Background Material for Class 1 Pricing Formula, 24 pages;
7. Assorted Dairy Statistics - Monthly, Beginning January 1994, 51 pages;
8. Assorted Dairy Statistics - Yearly, Beginning 1960 - 73 pages;
9.* Stabilization and Marketing Plans for Northern California and Southern California Marketing Areas effective January 11, 1999;
10.* Pooling Plan for California effective July 1, 1997;
11.* California Dairy Information Bulletin issued September 1999 with data for July 1999;
12.* California Dairy Industry Statistics, 1998;
13.* Summary of Transfers (Quota), Sales Based on Solids-Not-Fat, January - August 1999 - 1 page;
14.* Monthly Pooling Summary Data (Unadjusted), January – July, 1999 - 2 pages;
15.* Monthly Pool Price Statistical Information, January - July, 1999 - 3 pages;
16.* Comparative Statement - Milk Pooling Branch 1997/98- 1 page;
17.* Milk Production Cost: Index for March/April 1999 - 5 pages;
18.* Milk Production Cost: Feedback Information for May/June 1999 -25 pages;
19.* Milk Production Cost Comparison, January – June 1999 and 1998 – 2 pages;
20.* Milk Production Cost: Annual averages and five year averages for all cost categories by area, 1994 - 98; bimonthly values, January – June 1999 – 5 pages;
21.* Nonfat Dry Milk, Butter and Cheddar Cheese processing costs for selected periods, California, July 1996 to June 1998 - 7 pages;
22.* Hauling Rates Plant-to-Plant comparison of February 1994 to January 1999 - 1 page;
23.* Hauling Rates Ranch-to-Plant comparison of February 1994 to January 1999 - 1 page;
24.* Letter dated September 1, 1999, from Dairy Marketing Branch announcing the Minimum Prices for Classes 1, 2, 3, 4a, and 4b market milk F.O.B. plant for August, September and October 1999;
25.* Percent of Quota in Shipment, Statewide July 1999 - 1 page;
26.* Letter dated August 24, 1999, from Milk Pooling Branch announcing prices for quota, base and overbase market milk for July 1999;

The following items are all entered by reference and the most current copies are on file in the office of the Dairy Marketing Branch, 1220 N Street, Sacramento, CA:

27.* Water Conditions in California, Report 3 (April 1, 1999), issued by the California Department of Water Resources;
28.* California Crop - Weather, August 29, 1999, NASS-USDA;
29.* Federal Milk Order Market Statistics for May - June 1998, issued by AMS-USDA;
30.* Federal Milk Order Market Statistics: 1997 Annual Summary, issued by AMS-USDA;
31.* Dairy Products, with data for July 1999 with comparisons issued by NASS-USDA;
32.* Dairy Products, 1998 Summary, issued by NASS-USDA;
33.* Dairy Market Statistics, 1998 Annual Summary issued by AMS-USDA;
34.* Milk Production, July 1999, issued by NASS-USDA;
35.* Dairy Market News, Volume 66 Report 35, issued September 3, 1999 by AMS-USDA;
36.* CFSA Commodity Fact Sheet: Dairy Price Support Program, issued August 1997 by CFSA-USDA;*
37.* Final Regulatory Impact Statement, Price Support Program for Milk, January 1, 1991 through December 31, 1991, John R. Mengel and Charles N. Shaw, issued December 7, 1990 by ASCS-USDA;
38.* "Livestock, Dairy and Poultry Monthly," LDP-M-60, issued June 29, 1999 by ERS-USDA;
39.* "Farm Business Economic Report, 1996 - 1997", issued September 1998 by ERS-USDA;
40.* International Association of Milk Control Agencies, Supermarket Milk Price Survey Summary for May 3-7, 1999 - 9 pages;
41. The applicable sections of the Food and Agricultural Code of California;
42. The applicable sections of the California Code of Regulations;
43. Agricultural Marketing Service, USDA Final Rule, 7CFR Parts 1000 to 1139, issued August 23, 1999.
44. Transcripts of, hearing exhibits, post-hearing briefs, and determinations & orders (determination & findings) resulting from the previous hearings held on:
    (a) September 21, 1999;
    (b) February 7, 1997; and
    (c) February 5, 1997
45. Any relevant economic factors on the World Wide Web at the following web sites:
    a. Californian Department of Food and Agriculture, Dairy Marketing Branch Home Page at **http://www.ca.gov/dairy/**
    b. California State Home Page, including links to other California state agencies (executive, legislative and judicial) at **http://www.ca.gov/**
    c. United States Department of Agriculture (USDA) home page , including links to agencies within USDA at **http://www.usda.gov/**
    d. Thomas: legislative information on the internet - links to United States federal legislative information maintained by the Library of Congress at **http://thomas.loc.gov/**
    e. A data base of USDA information maintained by Cornell University at **http://usda.mannlib.cornell.edu/**

Appendix A-2:
Federal Orders Prior to January 2000

The following are aspects of federal order pricing used before January 2000 that differ from the current federal rules. Pursuant to the 1996 Farm Bill, USDA was required to make significant amendments to its federal milk marketing order system within the next three years. These amendments include among others: (1) consolidation of orders from the existing 32 down to no more than 14; and (2) consideration of alternative pricing schemes for the federal classified pricing system

Before January 2000, there were four classes of milk in 22 of the 32 federal milk marketing orders operated by the United States Department of Agriculture (USDA):

Class I: Milk used in fluid products.
Class II: Milk used in heavy cream, cottage cheese, yogurt, sterilized products, ice cream and other frozen products.
Class III: Milk used in butter and cheese, other than cottage cheese.
Class III-A Milk used in NFDM.

In the remaining 10 federal orders, there were three classes of milk. In these 10 orders, there was no Class III-A; Class III includes milk used for NFDM as well as butter and cheese other than cottage cheese.

Pursuant to the 1996 Farm Bill, USDA is required to make significant amendments to its federal milk marketing order system within the next three years. These amendments include among others: (1) consolidation of orders from the existing 32 down to no more than 14; and (2) consideration of alternative pricing schemes for the federal classified pricing system

In 19 of the 32 federal orders, all classes were priced on a hundredweight basis with a butterfat differential. In the remaining 13 federal orders, there was some form of component pricing.

The federal Class III farm price, also referred to as the Basic Formula Price (BFP), was established by a formula. This formula adjusts the prior month's average Grade B price in Minnesota and Wisconsin by the current month's change in commercial butter, NFDM, and Cheddar cheese prices weighted by production of those three commodities in the two states. While the Class III farm price was applied to milk used to make butter, cheese (other than cottage cheese), and in 11 orders NFDM, the BFP was primarily determined by the cheese market. For those orders that had Class III-A pricing, the Class III-A farm price was established in a manner somewhat analogous to the California Class 4a SNF price.

Federal Class I and II farm prices were established as differentials above the BFP. The Class I differentials ranged in value from $1.20 to $4.18 ($1.50 to $2.52 in those states adjoining California), depending upon the marketing situation in each particular federal order. The Class II differential was $0.30 in all-federal orders.

Appendix A-3:
California Milk Pricing Formulas

Introduction to California Milk Pricing

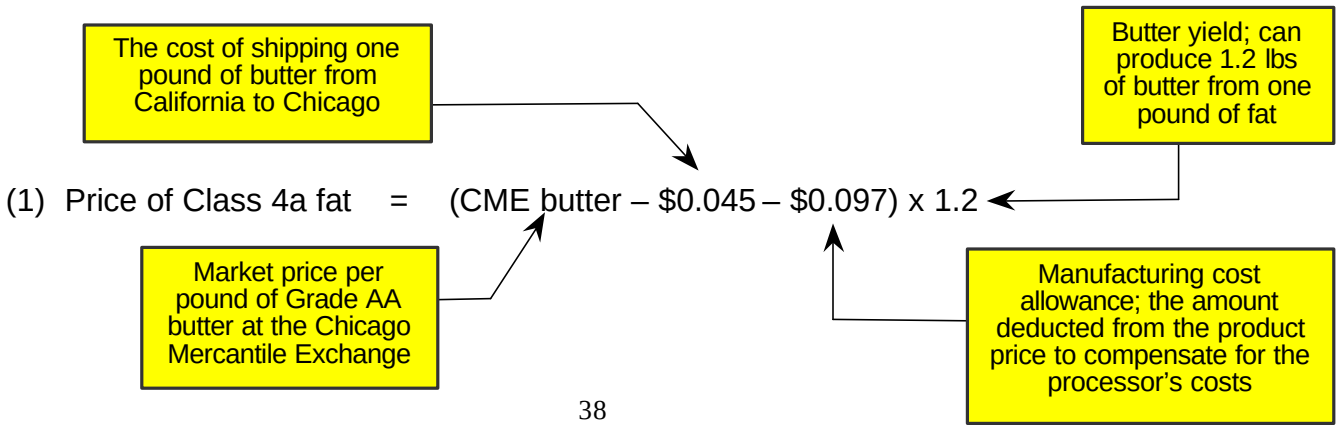
California's milk marketing program establishes minimum prices that processors must pay for Grade A milk received from dairy farmers. For the purposes of setting prices, there are five classes of milk that are established depending on the type of dairy product. In California's milk pricing system, commercial market prices for dairy product commodities are a significant factor in determining the minimum price that processors must pay for milk.

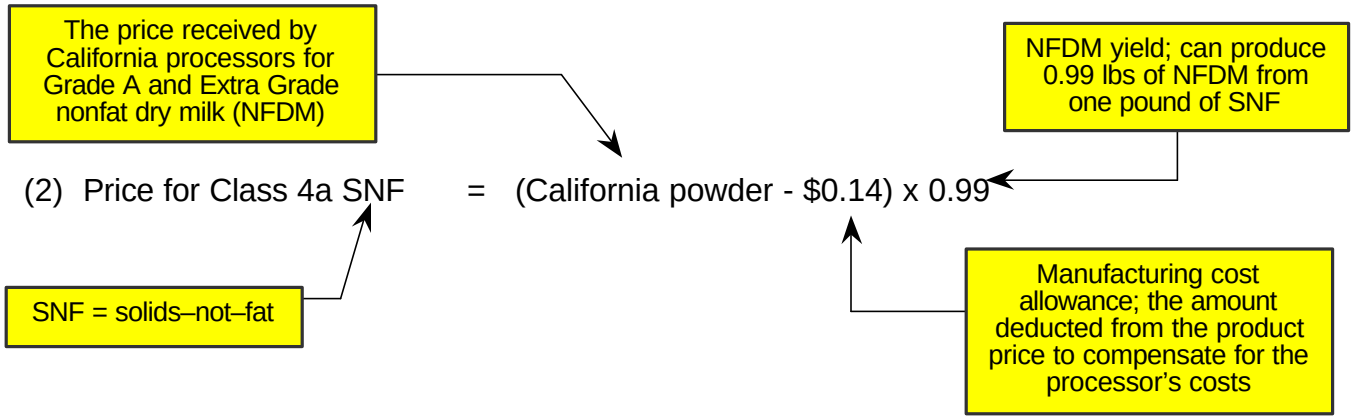
Milk consists of three basic components: butterfat (fat), solids–not–fat (SNF) and fluid carrier (water). Prices are assigned to all three components in the determination of the Class 1 milk price. Only the fat and SNF components are used to set the Class 2, 3, 4a and 4b milk prices. Because prices are determined for individual milk components, a simple calculation must be performed to obtain the implied hundredweight price. Class 1, 2 and 3 prices are adjusted bimonthly, and Class 4a and 4b prices are adjusted monthly.

The Five Classes of Milk

Class 1:	*Milk used in fluid products, including whole, lowfat, extra light and nonfat milks.*
Class 2:	*Milk used in heavy cream, cottage cheese, yogurt and condensed products.*
Class 3:	*Milk used in ice cream and other frozen products.*
Class 4a:	*Milk used in butter and dry milk products, such as nonfat dry milk.*
Class 4b:	*Milk used in cheese, other than cottage cheese.*

Class 4a price formula (butter and dry milk products)





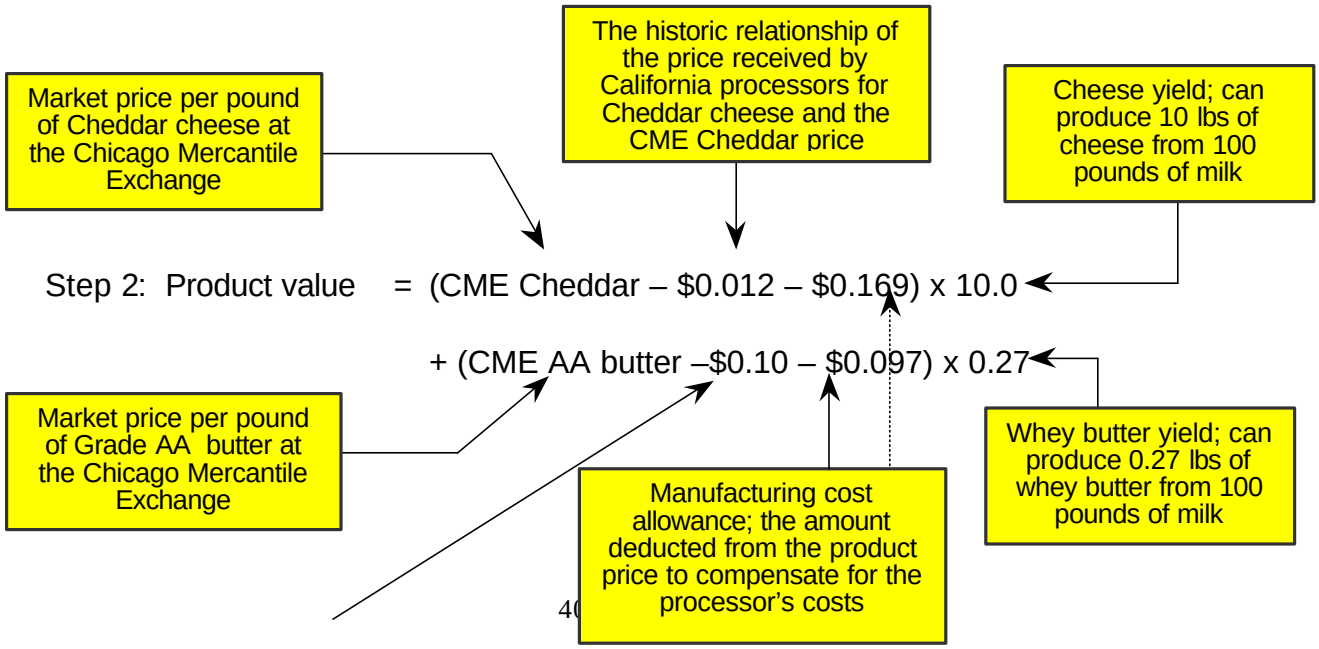
(3) Class 4a price per 100 pounds of standardized milk (@3.5% fat and 8.7% SNF)

= (3.5 x price of Class 4a fat) + (8.7 x price of Class 4a SNF)

Class 4b price formula (cheese)

The Class 4b price calculation consists of four steps. The first step sets the fat component price in 4b milk to that of 4a milk. The second step determines the value of cheese and Grade B butter per hundred pounds of milk. The third step identifies the 4b SNF price. The fourth step converts the component prices to a standardized milk price.

Step 1: Price of Class 4a fat = Price of Class 4b fat



Adjustment to reflect the value of whey butter relative to CME Grade AA butter price

Step 3: Price of Class 4b SNF =

Average percent of fat in raw milk used in Cheddar cheese plants

$$\frac{\text{Product value} - (3.65 \times \text{Price of Class 4b fat})}{8.78}$$

Average percent of solids–not–fat in raw milk used in Cheddar cheese plants

Step 4: Class 4b price per 100 pounds of standardized milk (@3.5% fat and 8.7% SNF)

= (3.5 x price of Class 4b fat) + (8.7 x price of Class 4b SNF)

Class 3 price formula (frozen dairy products)

Class 3 prices are established on a bi-monthly basis prior to the beginning of each even month. For example, the February–March pricing period for Class 3 milk uses the average Class 4a component prices for December and January.

(1) Class 3 fat price = average Class 4a fat price + ($0.0370 in Northern California OR $0.0393 in Southern California)

The average Class 4a price for two consecutive months

Differentials depend on processor location

(2) Class 3 SNF price = average Class 4a SNF price + ($0.0586 throughout California)

(3) Class 3 price per 100 pounds of standardized milk (@3.5% fat and 8.7% SNF)

= (3.5 x price of Class 3 fat) + (8.7 x price of Class 3 SNF)

Class 2 price formula
(sour cream, heavy cream, cottage cheese, and yogurt)

Like the Class 3 prices, Class 2 prices are established on a bi-monthly basis prior to the beginning of each even month. For example, the February–March period pricing period for Class 2 milk uses the average Class 4a component prices for December and January.

(1) Class 2 fat price = Average Class 4a fat price + ($0.0370 in Northern California OR $0.0393 in Southern California)

Differentials depend on milk component and processor location

(2) Class 2 SNF price = Average Class 4a SNF price + ($0.0643 in Northern California OR $0.0901 in Southern California)

(3) Class 2 price per 100 pounds of standardized milk (@3.5% fat and 8.7% SNF)

= (3.5 x price of Class 2 fat) + (8.7 x price of Class 2 SNF)

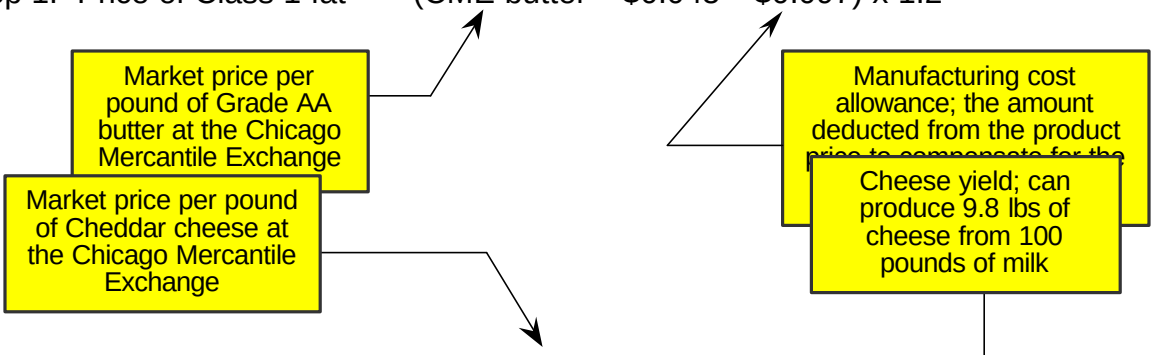
Class 1 price formula for fluid milk products

Determining the price for fluid milk products involves several steps. The Class 1 fat price for fluid milk pricing formula is set in a manner identical to the Class 4a fat price. The SNF and carrier price are calculated as residuals. They rely on a basic price mover called the commodity reference price (CRP) which is based off the Chicago Mercantile Exchange price for Cheddar cheese and Grade AA butter. The Class 1 fat price is subtracted from the CRP and the remaining residual value is allocated to SNF and carrier. Once the component prices have been assigned to fat, SNF, and fluid carrier portions of milk, the implied value of raw milk can be calculated.

The cost of shipping one pound of butter from California to Chicago

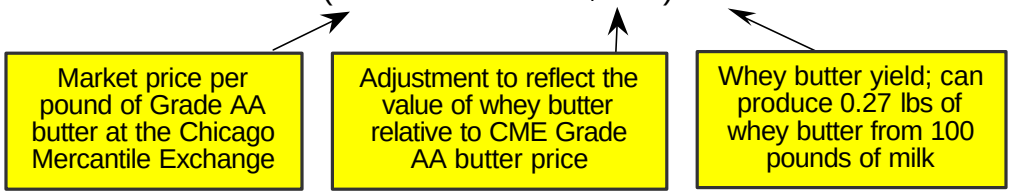
Butter yield; can produce 1.2 lbs of butter from one pound of fat

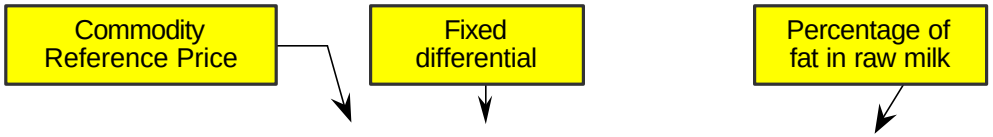
Step 1: Price of Class 1 fat = (CME butter – $0.045 – $0.097) x 1.2



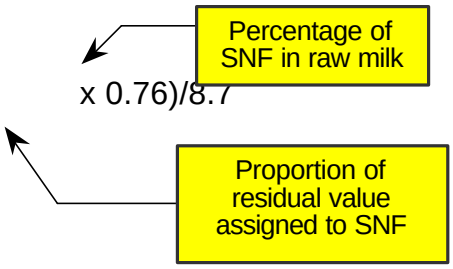
Step 2: Commodity Reference Price = (CME Cheddar) x 9.8

+ (CME AA butter – $0.10) x 0.27

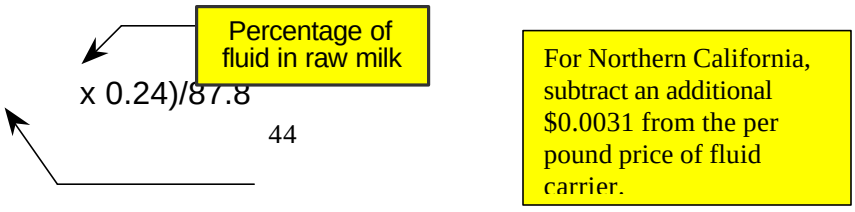


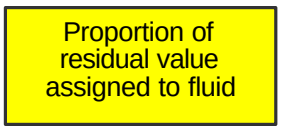


Step 3: Price of Class 1 SNF = (((CRP + $0.494) – (Class 1 fat price x 3.5))



Step 4: Price of Class 1 fluid = (((CRP + $0.494) – (Class 1 fat price x 3.5))





Step 5: Class 1 price per 100 pounds of milk (@3.5% fat and 8.7% SNF)

= (3.5 x Class 1 fat) + (8.7 x Class 1 SNF) + (87.8 x Class 1 carrier)